THE DEVELOPMENT OF AN INTEGRATIVE FRAMEWORK AND CAPABILITY MATURITY MODEL FOR THE PLANNING AND IMPLEMENTATION OF SUSTAINABLE RURAL DEVELOPMENT PROJECTS

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DECLARATION

This thesis is presented as an original contribution based on Doctorate of Philosophy research at the University of Salford, United Kingdom and has not been previously submitted to meet requirements for an award at any higher education institution under my name or that of any other individuals. To the best of my knowledge and belief, the thesis contains no previously published or written by another person except where due reference is made.

…… (Signed)

……. (Date)

LIST OF ABBREVIATIONS

CAPP	Community Awareness and Participation Plan
CRDP	Comprehensive Rural Development Program
CBO	Community Based Organizations
CMM	Capability Maturity Model
CSO	Civil Society Organizations
CSP	Child Sponsorship Program
CSR	Corporate Social Responsibility
CRDP	Comprehensive Rural Development Program
DRIMP	District Roads Improvement and Maintenance Project
DRRRI	Directorate of Foods, Roads and Rural Infrastructure
EUSC	Electricity Users Cooperative Society
FAO	Food and Agricultural Organization Food and Agricultural Organization
GDP	Gross National Product
GHG	Greenhouse Gases
GNP	Gross National Product
ILO	International Labor Organization
INGO	International Non-Governmental Organization
IRD	Integrated Rural Development
ISO	International Standard Organization
JDPC	Justice, Development and Peace/Caritas
JMP	Joint Monitoring Program
KII	Key Informant Interview
LGA	Local Government Area
LNGO	Local Non-Governmental Organization
MCC	Millennium Challenge Corporation
MEP	Mpeketoni Electricity Project
MDA	Ministries Department Agencies
MDG	Millennium Development Goals
MRDLR	Ministry of Rural Development and Land reform

MSD	Monitoring, Supervision and Data Collection
NBC	National Building Code
NEP	National Energy Policy
NGO	Non-Government Organization
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
PMEU	Project Monitoring and Evaluation Unit
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
RDF	Rural Development Framework
REA	Rural Electrification Agency
SAP	Structural Adjustment Policies
SDG	Sustainable Development Goal
SENELEC	Senegalese Company for Rural Electrification
SHEP	Self-Help Electrification Project
SSA	Sub Saharan Africa
SSATP	Africa Transport Policy Program
UN	United Nations
UNDP	United Nations Development Programs
UNESCO	United Nations Educational Scientific and Cultural Organization
UNDG	United Nations Development Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VIP	Ventilated Improved Pit Latrine
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
YEF	Youth Empowerment Foundation

ABSTRACT

Over the years, development partners and national governments in developing countries have invested heavily in implementing development projects in rural areas. This is in a bid to ensure that economic activities in these areas including Nigeria, are promoted and the general livelihood of rural dwellers improved in line with the Sustainable Development Goals (SDGs) which came into effect in 2015. However, there have been recorded failures in the implementation of rural development projects, which have led to the nonuse and inaccessibility of these projects. The aim of this research was to conceptualize and develop an integrative framework for the planning and implementation of sustainable rural development projects so as to drastically reduce the failure of rural development projects.

The scope of the research covers rural development projects in Nigeria. A mixed methods research approach was used for the research work, including qualitative and quantitative research approaches which assisted in identifying current practices, causes of project failure and appropriate concepts for developing an integrative framework. Findings from the literature review were used to create an initial conceptual framework for rural development projects, after which the qualitative and quantitative studies were conducted.

The findings from the study confirm that, indeed, rural development projects fail in Nigeria and this failure is as a result of weak planning, poor implementation and monitoring of rural development projects; lack of sustainability plans; ineffective stakeholder engagement; and a non-inclusive approach to implementing rural development projects. It was found that the level of involvement of community members in rural development projects is relatively low. Additionally, it was confirmed that the government (who are the major project implementers) not only have the most impact on the sustainability of a project but are also the most responsible for project failure. The findings from the study were used to refine the integrative framework. The developed framework and capability maturity model were tested to ascertain its applicability in serving as a guide for rural development projects implemented in Nigeria. The key elements in the framework proposed were a proper guide to project sustainability, adequate planning and monitoring, stakeholder involvement, community engagement, and social inclusion. Apart from the benefit of the framework and capability maturity model to be applied across different developing regions, the framework is novel and useful because it cuts across community-based projects i.e. projects centered on improving communities' livelihood.

CHAPTER ONE: GENERAL INTRODUCTION TO THE RESEARCH

1. INTRODUCTION

Rural development projects are focused on improving rural areas through strengthening institutions and infrastructures and sustaining the livelihoods and well-being of rural dwellers. In developing countries, such as those in Sub-Saharan Africa (SSA), there have been several rural development projects, funded and implemented by national and local governments, as well as development agencies. These projects include those on water and sanitation, healthcare, agriculture, road and transportation, and education. Over the years, there have been recorded failures in the implementation of some of these projects, which have led to nonuse and inaccessibility of these projects. While several organizations and government agencies have developed several frameworks for the planning and implementation of rural development projects, rural projects still fail.

As a result of the problem stated above, the need for a comprehensive and integrative framework for the planning and implementation of sustainable rural development projects cannot be over emphasized as it invariably improves project outcomes. This research therefore seeks to develop an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects with the aim of improving the delivery and use of sustainable rural development projects, in Nigeria, with lessons for sub-Saharan Africa. This chapter provides a background, purpose, significance, and scope of the thesis.

1.1. BACKGROUND

Over the last two decades, a lot of emphasis has been placed on the development of urban areas as a result of the commercialization of these areas and the subsequent rural-urban migration has led to overcrowding of the urban areas (Cohen, 2016). This has subsequently left a huge development deficit in terms of rural projects due to a sharp fall in funding resulting partly in persistence of rural poverty (Ashley and Maxwell, 2001). At least, over 70% of the world's poorest people live in rural areas. South Asia has the biggest number of rural people that are poor out of the world's poor rural population while Sub Saharan Africa (SSA) has the highest

incidence of rural poverty (Ana et al., 2018). According to World Bank (2020) there has been a steady decline in the percentage of the world's rural population from 66.1% in 1960 to 43.6% in 2019. This amounts to three billion, three hundred people living in rural areas worldwide (World Bank, 2020). Most of this population are poor and indeed 69% of people in resource-limited regions still live in rural areas (Dasgupta et al, 2015). In other words, most of the global poor live in rural areas and are poorly educated, employed in the agricultural sector, and under 18 years of age (World Bank, 2020), thus they are in dire need of sustainable development.

The world's population was six (6) billion in 1999 and it has been projected that the total world population will hit an approximate figure of 9 billion in 2050 (United Nations, 2019). Most of the population growth is expected to happen in developing continents such as Latin America, Asia, and Africa due to the continuously increasing number of births in these regions (Zahra, 2014). For example, SSA's population in 2015 was 995 million people. The current population is 1.1 billion, which is a share of 13.9% of total world population (Statista, 2020). The population growth in SSA, coupled with low investment in human capital and technology, has increased pressure on demand for resources such as water, land, food, etc., and ways to harness these resources (Olutola, 2020). Additionally, in most of the communities of countries in the region, current development infrastructures do not have the capacity to support the expected population boom (UNCTAD, 2018). Invariably, the expected increase in the population of developing countries is an urgent call for action to expedite the development of resource-limited countries (Faith, 2020).

As part of addressing some of these longstanding development challenges particularly in the developing world, the United Nations (UN) adopted the United Nations Millennium Declaration, which evolved into the Millennium Development Goals (MDG) at the Millennium Summit (UN, 2015). The meeting of the Millennium Summit lasted three days from sixth to eight September 2000, among 189 world leaders, in New York City, at the United Nations headquarters. (Chopra, & Mason, 2015). To combat disease, hunger, poverty, illiteracy, discrimination against women and environmental degradation as well as other challenges, the MDGs were derived with specific indicators and targets attached to them (Hulme and Wilkinson, 2012). The following were the eight MDGs:

1. Abolition of extreme poverty and starvation;

2. Realization of universal primary education;
3. Promotion of gender equality and women empowerment;
4. Reduction of child mortality;
5. Improve maternal health;
6. To combat HIV/AIDS, malaria, and other diseases;
7. To ensure environmental sustainability; and
8. Advancement of a global partnership for development (Broad and John, 2009).

Based on several implemented projects, some countries achieved many of the MDGs, while others did not realize any. The 2015 MDG assessment revealed that five developing regions met the target, but the Caucasus and Central Asia, Northern Africa, Oceania and SSA failed to meet the target (MDGs, 2016). Accordingly, the winding-up of the MDGs in 2015 brought about the seventeen United Nations Sustainable Development Goals (SDGs) (United Nations, 2016). These goals are defined by 196 targets and 230 indicators (United Nations, 2015), which is to help the appropriate tracking of the performance of individual countries in achieving the goals. The SDGs are widely described as a three pillar model that seeks to balance Social, Economic and Environmental targets (Holden et al., 2017). They came into effect in 2015 and are supposed to run for the next fifteen years, to be accomplished by all United Nations' member states including Nigeria, by 2030 [United Nations Development Group (UNDG), 2017]. The SDGs are to promote a decent life for all humans by focusing on economic development, social inclusion, and environmental sustainability. ((Birch and Jeffrey, 2015). Furthermore, the first target of the second goal - end hunger, achieve food security and improve nutrition and promote sustainable agriculture, is aimed towards increasing investment, including through enhanced international cooperation, rural infrastructure, agricultural research and extension services (UN, 2015).

As previously stated, there were success stories from the implementation of the MDGs. For instance, in Mongolia, 100 innovative mobile schools were provided for students without regular access to educational services. Guatemala also increased its investment in water and sanitation resources, which contributed to an increase in access to improved drinking water

from 79% in 1990 to 96% in 2006 and to improved sanitation from 70% in 1990 to 84 % in 2006 (UN, 2010). Conversely, Nigeria, like most sub Saharan African nations, failed to meet most of the MDG targets (Olabode et al, 2014). In Nigeria, Project management experts say the country recorded just about 39 % success in all its projects due to variations in plans, defective planning and inefficient management resulting in 60% of projects failure (Vanguard, 2015). Some of the implemented projects in the rural areas have failed as intended beneficiaries can no longer utilize or access these projects. These include a 2014 project mapping study carried out in Bayelsa State, Nigeria (a largely riverine state with over 80% made up of rural communities) showed that of the 1,527 projects identified and captured, 563 representing 37% of the implemented projects were found to be non-functional. These projects include Education, Health, and Water & Sanitation projects amongst others (OSSAP-MDGs, 2014). Specifically, across all the Nigerian states, 30% of water and sanitation projects failed within their first year of operation, and more than 55% were not operational after 10 or more years (Andres et al., 2018). With only 46% of rural areas in Nigeria having access to adequate water and sanitation facilities, it is suggestive that most of these project failures occurred in rural areas (Nkwocha et al, 2012).

Several reasons have been previously attributed to project failure in rural development. These include lack of ownership and improvement of the standard of living of the people (SAHEE, 2008), poor funding, corruption, poor program implementation and planning (Otto and Ukpere, 2014) amongst others. Also, there is the major issue of inclusion which notably is a reason for the failure of projects. It is clear that most of the projects that failed were or should have been integrated in nature. The success of integrated rural development depends on the creation of strong local institutions to support and implement projects and programs and strong local institutions built on strong legal and operational frameworks (IFAD, 2015). For example, a major component of rural development is the stakeholders involved in the development process. These stakeholders play a vital role in ensuring the sustainability of such projects. A comprehensive stakeholder mapping helps to show how the roles of these stakeholders ensure sustainability. However, some of these appropriate project conceptualization and delivery practices appear not to be prevalent in Nigeria.

Studies also show that some of the project failures in Nigeria and other Sub Saharan African countries are due to poor implementation mechanisms and excessive reliance on development

aid (Nweze, 2016). Across various rural communities worldwide, a plethora of frameworks for project planning and implementation practices are obtainable. These practices are multi-cultural and cut across different categories of projects. It is important to bring to the fore some of these practices. However, these previous frameworks developed for rural development projects are either mono project-based, such as the seventeen planning frameworks for rural water and sanitation development projects analyzed by (Barnes et al., 2011) or country-specific such as the comprehensive rural development framework developed by the Ministry of Rural Development and Land reform in South Africa. (MRDLR, 2009). The importance placed on rural infrastructures in the Global SDGs and the need to ensure the alteration of rural project failures informs the intended research in Nigeria. This research seeks to examine the failure of rural development projects and propose a framework that will reverse the trend and make rural development projects sustainable.

1.2. PROBLEM STATEMENT/KNOWLEDGE GAP

Several studies exist on rural development and rural development project failures in the developing world including Nigeria. Some of these studies include the notable work on Rural 'Development Projects in Nigeria: The case of Rivers State' by Otto and Ukpere (2014), the work titled 'Historical Timeline of Nigeria Rural Development Programs, with focus on its failure' by Abdulwakeel (2017), and the study titled 'Government Project Failure In Developing Countries: A Review With Particular Reference To Nigeria' by Eja and Ramegowda (2020), amongst others. These studies have investigated the failures of rural development projects in Nigeria to include poor project planning, implementation and sustainability practices amongst others, and have recommended the need for further studies to tackle bring feasible solutions to these issues.

Furthermore, aside, the seventeen planning frameworks for rural water and sanitation development projects analyzed by Barnes, et al. (2011) which is mono-project based and the comprehensive rural development framework developed by the Ministry of Rural Development and Land reform in South Africa. (MRDLR, 2009), which is country-specific, there have been frameworks, developed by organizations, which have guided the stages of rural development programs in SSA. They include the Organization for Economic Co-operation and Development (OECD) framework and nestle rural development framework.

Some gaps exist in these frameworks. They include; failure to consider country dynamics such as corruption and its impact on rural projects, failure to point to the importance of monitoring and evaluation in promoting the sustainability of rural development projects, and failure to promote consensus amongst stakeholders in the planning and implementation of rural development projects in SSA. Noticeably, there is a void in the frameworks developed in the available literature as they are not integrative i.e. cutting across different projects, processes, location, and sectors. Additionally, some of the previously developed frameworks are not comprehensive as they merely employ a desk review and not an integrative approach.

The consequence of these voids identified, is that they hinder rural development in SSA. Thus, there is a need to develop standard guidelines that are participatory and inclusive of all stakeholders and provide a responsive monitoring and measurement system to track project performance. The capability maturity model will be used to monitor and provide a pattern for continuous development using the development framework (Araujo, Cassivi, Cloutier, & Elia, 2007). The Capability Maturity Model (CMM) is established on small progressive steps. Literature indicates that at the heart of the objective of CMM is its ability to guide projects which aim to increase project delivery (Joubert, 2007).

1.3. RESEARCH QUESTIONS

The research questions were drawn from preliminary studies discussed in the problem statement. The broad research question is ‘what are the best practices for planning and implementation of rural development projects in Nigeria?’ as this is the most crucial question for the development of the integrative framework and capability maturity model. This research work hypothesizes how inclusion could become a part of all stages in rural project planning and implementation. On this bases, the following research questions were coined:

1. What are the concepts and theories relating to rural development projects?

2. What Design, planning, Implementation, Monitoring and Evaluation practices promote sustainable rural development projects?

3. Who are the stakeholders in rural development and how do their roles ensure sustainability?

4. What are the identified causes of rural development project failure and how can they be mitigated?

1.4. RESEARCH AIM AND OBJECTIVES

This research aims to fill the knowledge gap which was earlier explained in the problem statement, by developing an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects in Nigeria.

The objectives of the research are to:

I. Understand the concepts and theories relating to rural development projects.

II. Establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies systems, methodologies, processes and technologies involved.

III. Identify and evaluate the roles of the different actors and stakeholders involved in project implementation.

IV. Evaluate the inclusion and sustainability practices of rural-based projects.

V. Formulate an integrative framework and capability maturity model using the research findings to enhance the sustainability of rural development projects.

1.5. RESEARCH SCOPE AND METHODOLOGY

The scope of the research focused on developing an integrative framework with suitable practices to promote planning and implementation of sustainable rural development projects in developing countries, particularly Nigeria. This is because the project planning phase provides a framework for the entire project whilst the implementation phase brings the project to fruition thereby constituting a turning point in the life cycle of the project (Ocheni et al, 2013). In doing so, empirical data was obtained from Nigeria, with a state each from the six geo-political zones as case studies. This was done in order to get a fair representation of rural areas in Nigeria.

The study adopted a sequential mixed method approach, consisting of qualitative and quantitative strategies of inquiry, data collection methods and analytical tools. This implies that the qualitative data was collected before quantitative data. The rationale behind this was to explore the research issues such as causes of project failures etc. on the ground to understand the various perspectives and incorporate issues, which were not revealed in the literature broadly through qualitative methods, then, to follow up on this exploration with quantitative data so as to test the strength of key variables collected and analyzed from the qualitative study. The quantitative methods were amenable to studying a large sample, so that the results can be applied to a population. The quantitative and qualitative research focused on Nigeria, which is the largest country in SSA (UNDP, 2015). Understanding the key issues regarding planning and implementation of sustainable rural development projects in Nigeria, greatly assisted in the development of an integrative framework for sustainable rural development projects with lessons for SSA and other regions across the world.

In a bid to ensure that the research process assists in achieving the specified aims and objectives, the research process was divided into five stages namely; The research proposal establishment and agenda-setting stage. The extended literature reviews and active research stage, interviews, and surveys stage, formulate strategies and develop integrative framework stage and the framework review and testing stage. The entire research process is lucidly shown in chapter five of the thesis.

1.6. SIGNIFICANCE OF RESEARCH

Generally, most countries in Africa have predominantly neglected rural areas and focused on urban cities after independence (Paul and Agba, 2014). Thus, a major void is noticed in rural development as rural areas are being left behind in development. Academics generally prefer to undertake urban research instead of rural research for several reasons including its cost-effectiveness and safety (Chambers, 2014). As a result, this research work provides a premium opportunity to advance research and knowledge in rural development and its accompanying systems.

The final output of this project is a data-driven integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects which

can be adapted in Nigeria, with lessons for SSA. Significantly, the framework sets out to be used as a measure of the appropriateness, outcomes, and sustainability of rural development projects, thereby:

- Establishing current practices in rural development project implementation.
- Evaluating methodologies, systems, processes and technologies in design, implementation, evaluation of rural development projects using mixed methods.
- Identifying and classifying different actors and stakeholders in rural project implementation.
- Evaluating Inclusion and sustainability practices in rural-based project implementation
- Promoting Sustainable rural development project planning and implementation.
- Identifying causes of failure of rural development projects and how can they be mitigated against
- Facilitating sustainability of rural development projects
- Adding to the body of work on sustainability

Concepts from literature were improved on based on data collected and applied to the model. Considering that community members are the major benefactors of rural development projects, this project will aid in enhancing beneficiaries' satisfaction. The framework is a guide towards the improvement of current practices obtainable in the planning and implementation of rural development, especially through inclusion.

1.7. RESEARCH MOTIVATION

There is a scarcity of sustainable rural projects which can be noticed in the variation of indices between urban and rural areas. For example, 23% of rural dwellers in SSA have access to improved sanitation facilities in contrast to 67.5 % average of people with access to improved sanitation facilities worldwide (World Bank, 2017). Also, only about 56 % of the rural

population in SSA have access to improved water sources as against the global average of 96.5 % of urban dwellers who have access. (World Bank, 2016).

After over twelve (12) years of development practice experience, (ten years in senior management level), which include financing, designing, implementing, monitoring and evaluating human and economic development programs in countries in West Africa; and being at the center of the planning and implementation of pro-poor programs geared towards Nigeria's quest to achieve the MDGs and SDGs, personal research and experience led to the realization that sustainable development projects especially in rural areas have failed for several reasons. These reasons include poor planning and budgeting, inadequate funding, corruption, instable government etc. The consequences of these project failures imply negative effect on the health, education, feeding, and overall standard of living of residents in these areas. More effort has been put into development of urban areas than rural areas, which has led to rural-urban migration, brain drain and other negative effects. This research was, therefore, birthed by the need to develop standard guidelines for sustainable rural development projects that are participatory and inclusive of all stakeholders, to improve the standard of living of people in rural areas.

1.8. STRUCTURE OF THESIS

The development of an integrative framework for the planning and implementation of sustainable rural development projects requires a methodological structure. This structure is divided into nine chapters which sum up this research, as explained below:

Chapter 1: *Introduction to the Research*

This section addresses the background to the research, the research gap being filled by the research, aim and objectives, and the scope of the research. This chapter is fundamental in setting the research work in the right direction.

Chapter 2: *Concepts and Theories Relating to Rural Development Projects*

This chapter seeks to identify and explain the key concepts involved in rural development projects. It explores past and current literature on the identified concepts and moves to explore

the approaches in rural development projects and classifies them into categories. Furthermore, the chapter elucidates on the strategies for rural development projects.

Chapter 3: *Sustainable Rural Development Projects' Practices in SSA*

Chapter three discusses issues relating to sustainability of rural development projects in SSA and Nigeria. These issues include paradigms of rural development in SSA, International Standard Organization (ISO) and SSA countries' membership, and standard building codes in SSA. More importantly, the chapter analyzes the status (successes and failures) of notable rural development projects in SSA. This chapter is very important in developing standard guidelines that would fit best with the current practices in Nigeria and SSA.

Chapter 4: *Frameworks and Models that Promote Sustainable Rural Development Projects in Nigeria*

Chapter four develops a conceptual framework based on secondary data. The chapter suggests a preliminary framework for the planning and implementation of sustainable rural development projects. This chapter also lays a foundation on the CMM.

Chapter 5: *Research Design and Methodology*

Chapter five explains the research methodology utilized for the research work. It describes the research philosophies, research approaches and the research strategies employed. The section further explores the various research techniques utilized for the research and resolves potential reliability and validity issues.

Chapter 6: *Results from the Qualitative Study*

Chapter six presents the findings from the qualitative data collection, in a structured format, and analyses these findings.

Chapter 7: *Results from the Quantitative Study*

Chapter seven reports the findings from the quantitative study and triangulates it with the qualitative findings. The study also presents a holistic discussion of the findings to be used in developing the integrative framework and capability model.

Chapter 8: *The proposed integrative framework and capability maturity model*

This section is preceded by discussions of results from the qualitative and quantitative studies, which were synthesized to develop the integrative framework and model for the planning and implementation of Sustainable Rural Development Projects.

Chapter 9: C*onclusion*

In this chapter, summarized findings based on conclusions are drawn. The novelty of the research, and the research's contribution to literature are discussed. The research's contributions to the body of knowledge and potentials for future research are also presented in this section.

1.9. SUMMARY

Rural development projects are centered on improving and sustaining the livelihoods and well-being of rural dwellers. Although rural dwellers are greater in number than urban dwellers in most developing countries, rural areas are most often marginalized politically and receive reduced resource allocations when compared to urban areas. This might be fairly attributed to the magnificent level of political and economic power urban political actors wield. Despite the implementation of the MDGs and the SDGs, some rural development projects have failed and are still failing in Nigeria and other Sub Saharan African countries due to a couple of factors such as poor funding, corruption, poor program implementation and planning, lack of inclusion, etc. Thus, there is a need for a sustainable rural development framework and capability model which is relevant to address failures of previous projects, and applicable across rural development projects. This chapter presented the background, objectives, scope and significance of this research. The next chapter focuses on key concepts, theories and activities associated with sustainable rural development projects.

CHAPTER TWO: CONCEPTS AND THEORIES RELATED TO RURAL DEVELOPMENT PROJECTS

2. INTRODUCTION

This chapter reviews concepts and theories related to sustainable rural development, in the context of SSA and Nigeria. These concepts include development, sustainability, rurality, project failure, sustainable development, rural development, and monitoring and evaluation. The chapter begins with a broad definition of concepts, and goes on to describe how these concepts are related. This is covered in section 2.1. This section meets research objective 1: Understanding the meaning and concepts relating to rural development projects.

After the related concepts are defined, the chapter goes on to review the evolution of related theories in section 2.2, with the intention of understanding how rural communities in SSA may carry out sustainable development projects. These theories include development theories, managerial theories, neo-classical and ethical theories. Section 2.3 analyses the gaps in the theories. Section 2.4 discusses the three strategies to rural development projects. These sections helped to organize empirical facts of the topic understudy, in order to make it easier to triangulate its findings with that of the qualitative and quantitative studies in consecutive chapters. Additionally, these sections also meet the first objective, and the second objective which is to establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies systems, methodologies, processes and technologies involved.

2.1 CONCEPTS RELATED TO RURAL DEVELOPMENT PROJECTS

2.1.1 DEVELOPMENT

The term “development” can be explained in different contexts. This means that it does not refer to one perspective on social, political, biological, or economic betterment. Instead, it is a hybrid term for a myriad of strategies adopted for transformation from a current state to a desired one (Abuiyada, 2018).

Slim (1995) states that development is a multidimensional process involving reorganization and reorientation of an entire economic and social system. The above definition suggests that development is process of improving the quality of all human lives with three equally important aspects:

(1) Increases in availability and improvements in the distribution of food, shelter, education, health, protection, etc. through relevant growth processes;
(2) Improvement in levels of living, including income, jobs, education, etc. by creating conditions conducive to the growth through the establishment of social, political, and economic systems and institutions, which promote human dignity and respect; and
(3) Expansions in the range of economic and social choices available to individuals and nations. That is, varieties of goods and services.

Amartya Sen, an Economist, describes development as freedom (Sen, 2001). According to Amartya, the end goal of development is the increase of human liberty: thus, there is no development if the focal focus does not increase beneficiaries' freedom to be involved citizens; engagement in market barter; and an increased access to basic social amenities – such as education, health care, nutrition and a hygienic environment (Sen, 2001) (Miletzki & Broten, 2017). Hence, pulling from the different examined definitions given by literature, development may be explained as a procedure through which society metamorphoses from one level of freedom to another level of freedom – and often a more advantageous stage which allows end receivers of development lead an improved quality of life (OXFORD, 2007) (Hulse, 2007) (Human Development Report Office, 2016).

2.1.2 SUSTAINABILITY

The origin of sustainability can be traced to the Brundtland report of 1987 (Kuhlman & Farrington, 2010). The concept, sustainability became a part of human glossary in the mid-1980s, since then it has grown in meaning and usage across discipline. The word sustainability is derived from the term "sustenance", which means to 'keep alive', and to preserve resources and facilities in a way that they do not diminish overtime (Gane, 2007).

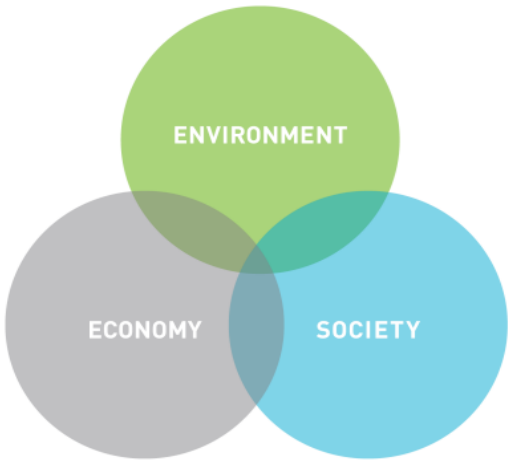
The World Commission on Environment and Development (1987) in defining sustainability stated that sustainability: "meets the needs of the present without compromising the ability of

future generations to meet their own needs." Literature argues that for sustainability to be applicable, it must address the environment, economy or society – since these are the core on which the concept rests (Portney & Berry, 2016). This statement is worth noting, because it indicates that sustainability may only be attained if it concomitantly shields the environment, conserves economic widening and aids equity.

Michael (2015) defines sustainability as a dynamic equilibrium in the process of interaction between a population and the carrying capacity of its environment such that the population develops to express its full potential without producing irreversible, adverse effects on the carrying capacity of the environment upon which it depends. Other authors such as Cortese (2003) also explain sustainability as a vision for the world in which current and future humans are reasonably healthy; communities and nations are secure, thriving and peaceful; everyone has access to opportunities; and the integrity of the biosphere which supports life, is reinstated and continuous at a sufficient level to bring about the possibility of these goals.

In simpler terms, sustainability implies that the critical activities of an economy are (at a minimum) ecologically sound, socially just and economically viable, and that they will continue to be so for future generations (Kuhlman and Farrington, 2010).

Figure 2. 1: The three pillars of sustainability



Adopted from United Nations Sustainable Development (2015)

Studies like Mazmanian, Kraft, & Calloway (2001) explain the use of sustainability in three epochs. In the first, sustainability was used to connote federal administration tailored towards

the repair and elimination of environmental damage. In the second epoch, sustainability was used to explain the attainment of greater measures of environmental conservation, whilst the third epoch used sustainability to imply longevity. Hence, in light of this research work, sustainability will be explained in relation to the third epoch.

Over the years, literature has critiqued the concept of sustainability for its loose usage. However, these criticisms do not relegate the importance of the concept. Sustainability succinctly put, may be explained as the actualization of a system in attaining it full anticipated life-span (Costanza & Patten, 1995). This definition puts into consideration one of the three components of sustainability. These are: when, what system and for how long. These components have been selected from the major criticism on sustainability as a concept (Büyüközkan & Karabulut, 2018).

It is important to consider the component of sustainability that assesses 'how long' a project is designed to last for. This is important since nothing lasts forever. Hence, a system or project can only be defined as sustainable, if it lasts for the duration it was created to last for. It is important to have this perspective in mind in all stages of a project. This position is supported by a study carried out by Wijethilake (2017) in Sri Lanka, which showed that a proactive sustainability plan is positively related with sustainability control systems. This finding by Wijethilake (2017) would have been more applicable if similar studies had been carried out in Sub-Saharan Africa. Hence, by conducting this research, this study provides an opportunity to assess the applicability of sustainability defined from the angle of 'how long' in propelling the sustainability of projects carried out in Sub-Saharan Africa.

This section looks into the second component, which puts into consideration the 'when' factor when explaining sustainability. Explaining sustainability from the angle of 'when' may be understood as predictions of measures taken to yield certain results in the future. This explanation of sustainability addresses the component that assesses whether a project has persisted. For instance, involving stakeholders at all levels of a rural development project should aid its longevity. This explanation is hinged on probability; hence in developing a sustainable project this understanding has to be possessed. Studies conducted by Zinatizadeh et al. (2017) have shown the importance of having this understanding: since the absence a holistic understanding of sustainability may result in improper design of sustainable projects.

Many sustainable frameworks which have been developed have not considered the impact of these variations in definition, in influencing project sustainability. However, this study intends to contribute to efforts in filling this gap in literature.

The third component in defining sustainability is the 'what system?' This component takes into account the part of the whole that wants to be sustained in a project. As a case in point, is it a culture of cleanliness that wants to be sustained or an act? When sustainability is explained in this light, it is understood in the light of features or characteristics. In a paper by World Commission on Environment and Development (1987), Pezzey (1992) and (English & Costanza, 1993) sustainable development was explained using these explanations: "a sustainable scale of the economy relative to its ecological life-support system; an equitable distribution of resources and opportunities between present and future generations; and an efficient allocation of resources that adequately accounts for natural capital".

2.1.2.1.1. PROJECT SUSTAINABILITY

The three pillars of sustainability illustrated in figure 2.1 are economic, social, and environmental sustainability. From a sociological and anthropological standpoint, projects are primarily social interventions, and thus fall under the pillar of social sustainability (Oino et al, 2015). Social sustainability incorporates thoughts of value, strengthening, availability, investment, sharing, social personality, and institutional soundness. It looks to protect the climate through economic growth and the alleviation of poverty through development projects (Basiago, 1998). This study focuses on the concept of sustainability, which is situated with Foreign Aid financed projects remaining functional and self-sustaining beyond the initial technical and financial assistance by the funding agencies to be the ones now to be funded (Oino et al, 2015). Thus, sustainability in this thesis is focused on project resilience and longevity.

2.1.2.1.2 STANDARDS TO MEASURE SUSTAINABILITY

A standard of measuring developmental sustainability is through indicators. The establishment of sustainable indicators has been for many countries and institutions a key opportunity to move environmental issues higher up the policy agenda alongside economic and social issues. According to Bórawski et al, (2016) Developmental Sustainability is measured by various

indicators. Cheng et al, (2007), categorised these indicators in the following summarised ten (10) thematic groups which include: Social and economic development, sustainable production and consumption, demographic changes, public health, changes in energy and climate, sustainable transport, natural resources, global partnership, good governance, and social inclusion (Huusko, 2018).

In project sustainability, social inclusion is of great importance because it entails the addition and involvement of persons who serve as active designers and participants and also the ultimate beneficiaries (United Nations, 2015). It must put in place practices and infrastructures that are renewable and adaptable. Social inclusion is defined as a process of identifying the roles of groups, communities, and institutions and offering structural transformations in the best interest of disadvantaged or marginalized groups (Hayes and Matthew, 2007).

Sustainable development indicators are useful for monitoring and measuring the state of a group of people by considering a manageable number of variables or characteristics. The major challenge with the utilization of indicators for sustainability is relating what the indicators measure to actual sustainability (United Nations, 2016). Such indicators are not advantageous when considered in isolation, rather their usefulness comes from monitoring relative transformations in the state of the environment. Using sustainability indicator methods for assessing the sustainability of rural development has had mixed results in practice and, in some cases, minimal effects on policy (Levett, 1998).

2.1.3 RURALITY

According to Bealer, Willits & Kuvlesky (1965) rurality historically referred to areas of low population density, small absolute size and relative isolation, involved with primary production, and offering a homogeneous way of life. They concluded that the description of rurality changes over time. Woods (2011) points out that ‘rural’ is an imagined space – the juxtaposition of the countryside and the city is artificial by nature. In a sense, this approach follows the idea of Mormont (1990, cited in Woods 2011) when he says that “the ‘rural’ is first imagined, then represented, then takes on material form as places, landscapes and ways of life are shaped to conform to the expectations that the idea of the ‘rural’ embodied”.

John Mcdonagh in his book “renegotiating rural development in Ireland”, proposed that rurality

should be viewed beyond "two mutually exclusive visions of the countryside, one as a green and pleasant land that people visit and fantasize about, and the other as a place where people live and work" (McDonagh, 2017), but a locale with the potential of improving the quality of life of urban dwellers alike – if well nurtured (Gebre & Gebremedhin, 2019). There is no unified definition for the concept of rurality. This lack can be traced to the absence of internationally agreed indices to measure rurality (Rainsford et al., 2017) (Madu, 2010). However, many rural communities share similar characteristics, especially in developing regions like Sub-Saharan Africa (Gessert et al., 2015).

Wilson et al put forward that rural dwellers distinguish themselves from urban dwellers: rural dwellers know they are rural dwellers (Wilson, Fillion, Thomas, Justice, Bhardwaj, et al., 2009) (Wilson, Fillion, Thomas, Justice, Veillette, et al., 2009). The United Nations in proposing a definition of rurality in developing countries – of which a substantial percentage of Sub-Saharan African countries are – suggests that rural areas in comparison to urban area are characterized by a higher percentage of the economically active population employed in agriculture, lower availability of electricity and/or piped water in living quarters and the lack of ease of access to medical care, schools and recreation facilities" (United Nations Statistics Division, 2019).

The Nigerian Central Bank in conjunction with Nigeria's Institute for Social and Economic Research (NISER) defined some measures of rurality in Nigeria, these are: a community not exceeding 25,000 people, an economy predominantly dependent on farming, an underprivileged living condition, unavailability of social basic amenities required to live an optimum quality of life, low or a non-existent saving culture and a substantial amount of income is spent on consumption (C. N. Ekong & Onye, 2016). Chigbu (2013) defines rurality as a condition of place-based homeliness shared by people with common ancestry or heritage and who inhabit traditional, culturally defined areas or places statutorily recognized to be rural. Definitions of rurality vary widely and there is no single best definition that adequately measures its theoretical construct, but rural areas are clearly recognisable. This research adapts the definition of Saheed (2017), which states that Rurality is a term describing a location where farm activities are more pronounced coupled with low population density, remoteness, and a bit of nonfarm activities.

2.1.4 RURAL DEVELOPMENT

Before delving into details on rural development in sub-Saharan Africa, it is expedient to elucidate on what rural development as a concept connotes. The World Bank defines rural development as: "a strategy designed to improve the economic and social life of a specific group of people – the rural poor. It involves extending the benefits of development to the poorest among those who seek a livelihood in the rural areas." (Bank, 1975). However, for a clearer understanding of the concept of rural development, subsequent paragraphs will dichotomize it and explain subcomponents independently.

Specifically, rural development is the overall development of rural communities. It is a multi-dimensional and a comprehensive concept, which takes into consideration, number of aspects, these include, agriculture and allied activities, village and cottage industries, farming practices, system of education, training centres, health care and medical facilities, environmental conditions, housing accommodation, infrastructure, technology, skills development opportunities for individuals, administration and management practices, employment opportunities and human resource development (Kapur, 2019).

What this means is that rural development are efforts put in place towards filling the lacuna which exists in marginalized rural communities – with the ultimate aim of improving rural dwellers' livelihood. Rural development may also be explained as thrusts intended to result in the economic and social well-being of rural dwellers (Cleaver, 1997). These development activities are often put in place by national governments, international donors, local donors and communities alike (Kwame Baah-Dwomoh, 2016).

2.1.5 PROJECTS

While there are several definitions of a project in the literature, one of the best has been offered by Tuman (1983), who states: "A project is an organization of people dedicated to a specific purpose or objective. Projects generally involve large, expensive, unique, or high-risk undertakings which have to be completed by a certain date, for a certain amount of money, with some expected level of performance. At a minimum, all projects need to have well defined objectives and sufficient resources to carry out all the required tasks."

According to Ward (2018), the following are the characteristics of a project:

(1) A start and a finish period;
(2) A time frame for its completion;
(3) Involvement of several people on an ad-hoc basis;
(4) A limited set of resources; and
(5) Sequencing of activities and phases.

While the characteristics listed above are true for all types of projects, this research focuses on development projects which are aimed at improving the standard of living of rural or urban dwellers in an economy (Luige, 2013).

2.1.6 PROJECT FAILURE

A project is considered a failure when it has not delivered what was required, in line with expectations. In examining failed projects, there are some common aspects that suggest certain characteristics are strongly related to perceived project failure. Three distinct aspects of project performance (outcome) were identified as benchmarks against which to assess the success or failure of a project. These aspects are:

1) The implementation process of the project;
2) The perceived value of the project; and
3) Beneficiaries' satisfaction with the delivered project (Pinto and Jr, 1990).

The implementation process of the project is an internally-oriented measure of the performance of the project team, including such criteria as staying on schedule, on budget, meeting the technical goals of the project, and maintaining smooth working relationships within the team and parent organization. If these criteria during the implementation process are not met, a project is said to have failed (Zuofa and Ochieng, 2014).

According to Zuofa and Ochieng, (2014) the perceived value of the project includes the project team's perceptions of the value and usefulness of the project's deliverables. This places emphasis on the project's potential impact on beneficiaries. If the project has not met its potential value at the end of the project period, it is said to have failed. Beneficiaries' satisfaction, the third aspect of project performance, is an external measure of effectiveness, made by the beneficiaries. If the intended beneficiaries of a project are not satisfied at the end of a project period, the project is said to have failed (Obadia, 2018).

2.1.7 SUSTAINABLE RURAL DEVELOPMENT PROJECTS

Possessing all the characteristics of a project, a rural development project embraces all aspects of rural life such as health, education, water supply, good roads, good housing, job opportunities, electricity and agriculture, amongst others (Heeks & Stanforth, 2014).

Sustainability is a crucial measure of success for every rural development project. It is not enough to start a project. The true measure of rural project success is the effect of such a project over time. Sustainability connotes lasting effect of rural developmental interventions (Gupta & Vegelin, 2016) (Haider, Boonstra, Peterson, & Schlüter, 2018).

Sustainable rural development encapsulates the forward progression of the measures of livelihoods amongst rural dwellers. The Center for Sustainable Development in the United States succinctly explain Sustainable rural development as "improving the quality of life for the rural poor by developing capacities that promote community participation, health and education, food security, environmental protection and sustainable economic growth, thereby enabling community members to leave the cycle of poverty and achieve their full potential" (CSD, 2017). Thus, this viewpoint indicates that sustainable rural development is continuance and not static. Furthermore, the need to achieve sustainable development in rural areas is interlaced in our perception of the interrelations of its dynamics – which are environment, economy, politics and society (Birch, 2015).

Few rural development projects in Sub-Saharan Africa have been able to sustain interventions proffered over time. Literature has associated this inability to a lacuna in the holistic knowledge of the dynamics that make up rural Sub-Saharan Africa communities (Lewis et al., 2003) (Baffoe & Matsuda, 2017).

2.1.8 MONITORING AND EVALUATION

There is an increase in the recognition for the need of a well-designed monitoring and evaluation procedure on programs carried out (Stem, Margoluis, Salafsky, & Brown, 2005). This is essential because this monitoring and evaluation incorporated designs help to monitor and assess to ensure that the aim of the program is being achieved. Gregory & Wilson (2018) suggests that monitoring and evaluation is pivotal in answering project questions such as: "have we finished?", "what makes up project success?" to name a few. However, for a more

comprehensive understanding of the concept of monitoring and evaluation, the words will be separated and examined individually.

The World Health Organization (2010) explains monitoring as a process in which information is collected frequently on the activities of the project being implemented. This definition also indicates that monitoring makes visible, especially to the program manager whether activities carried out are going according to plan, and if they are not it aids quick fixtures where errors are observed. Monitoring keeps a record of inputs and outputs recorded from the project. These include project activities, reporting and attestation, financial report and budgeting, and supplies and materials (Department of Planning Monitoring and Evaluation, 2014). If this definition of monitoring were to be applied into understanding rural development projects in Sub-Saharan African countries, it means that monitoring presents a measure by which the activities of projects carried out are being assessed regularly to see if they are in line with the set objectives. Monitoring may also be explained as a process in which projects carried out are placed under systematic reviews to ensure that they do not deviate from the desired target (Report, 2007). An evaluation on the other hand according to the World Health Organization (2010) asks questions to ensure that the overall aim of the project is being achieved.

Therefore, monitoring and evaluation may be explained as efforts made to track the result of the intervention proffered by a program. Research has shown the importance of monitoring and evaluation plans from the start of the program (Gregory & Wilson, 2018). However, many rural development projects carried out in SSA do not adopt proper monitoring and evaluation practices into their program due to the lack of technical knowledge. Zall Kusek & Rist (2004) emphasized this by stating that practitioners must be ready to inculcate monitoring and evaluation into the various stages of a project to yield a sustainable project. Markiewicz & Patrick (2016) suggested a template on how to develop a monitoring and evaluation model. These are: "scoping the framework; identifying planned results; using program theory and program logic; developing evaluation questions; identifying processes for ongoing data collection and analysis; determining means to promote learning; reporting; and dissemination of results." The impact of inculcating monitoring and evaluation into every level of projects has been applied by the Ghanaian government in an attempt to strengthen its health system (Phillips et al., 2018). However, the effectiveness of this program is yet to be assessed, since it was recently launched.

Consequentially, the aforementioned suggest the importance of monitoring and evaluation in fueling sustainable rural development projects in SSA.

2.2 THEORETICAL REVIEW

Theories may be explained as systematic methods of understanding social occurrences (Wang, 2012). The theoretical literature review helps to establish what theories already exist in regard to an issue, the relationships between them, to what degree the existing theories have been investigated, and to develop new hypotheses to be tested (Gorgas Library, 2019). Hence, to understand possible explanations on the procedures to carry out sustainable rural development projects in Sub-Saharan Africa a few theories are examined.

2.2.2 DEVELOPMENT THEORIES

Development theories are a collection of explanations on the best methods by which society may reach her desired changes. Most development theories draw from social sciences' approach in explaining how society may move from a desired level of change to another (Esteva, 2009). Hence, some development theories (modernization and dependency theories) are examined with the intention of understanding how rural communities in Sub-Saharan Africa may carry out sustainable development projects.

2.2.2.1 MODERNIZATION THEORY OF DEVELOPMENT

The modernization theory deals with the transformation of society from a traditional or pre-modern to a modern society. The origin of the modernization theory may be traced to Max Weber, a German Sociologist. His work provided the foundation for the modernization paradigm developed by Talcott Parsons. The modernization takes into account the internal workings of a traditional society and posits that with assistance, such can be moved from traditional to a modern society. Modernization theory came into prominence in the 1950s and 1960s (Tipps, 1973). The modernization theory is a significant developmental theory to understudy because it guided many developmental projects carried out in that era. Gwynne (2009) suggests that at the heart of the modernization theory is an attempt to understand the societal factors that guides a society's developmental progression. From this explanation, it may be deduced that central to the modernization theory is emphasis on the process of change

and the effect of such change on the target community.

The modernization theory operates a top-down approach to rural development (Ynalvez & Shrum, 2011). It also holds that all societies evolve in similar patterns. This is a commendable observation. However, it posits that the developmental patterns of more developed societies or urban centers may be transferred to underdeveloped communities. In postulating this position, the modernization theory fails to put into consideration the peculiarities distinct to each community. Furthermore, the fact that a development process has produced desired results in an urban community, does not mean that this result will be replicated in a rural community, if it is applied.

The incongruence of the modernization theoretical perspective with many Sub-Saharan African rural communities have been displayed in the failure of many rural development projects carried out using this theoretical position. This was displayed with the failure of the Rostow's theory, a sub-sect of the modernization theory which indicated that every society passes through five stages of societal development: the primitive society; the preparation for take-off; the take off stage; the drive to maturity stage; and the fifth stage is the period of mass consumption. As a result, the modernization theory of development will suggest that rural development plans that have worked out in other communities be imposed on a community of interest, without really involving the community members in the project process.

However, most rural development projects that have utilized this in Sub-Saharan Africa have failed. A viable example is the FADAMA, which was implemented in a northern state in Nigeria (Ezeh, Anyiro, Ehiemere, & Obioma, 2012). A paper by Matunhu, (2011) suggested that the use of the modernization theory failed because it was unable to drive rural communities to the next level of economic development.

2.2.2.2 DEPENDENCY THEORY

The dependency theory came into being out of the gaps observed in the modernization theory. It rose to the lime-light in the 1960s (Chase-Dunn, 2015). The dependency theory is a useful lens through which the failures and successes of rural development projects implemented in Sub-Saharan Africa may be understood. Sunkel (1969) explains dependency theory as the effect of richer societies in the form of economic, political and cultural influences on poorer

communities. In this context, this means that the dependency theory places emphasis on the impact of external relationships or interaction on the development of rural communities in Sub-Saharan Africa. Literature also suggests that the effect of this relationship has contributed to the slow and backward economic trend observed in many rural Sub-Saharan communities (Sunkel, 1969).

The dependency theory is hinged on the central-peripheral analogy which holds that an unequal relationship exists between developed societies and underdeveloped societies. Developed societies may be viewed as those who have utilized their resources for the whole society's advancement. Underdeveloped countries may be viewed as societies that have used their resources to advance the life of a few in society, and not the whole (Matunhu, 2011). However, Frank questions the general terminology defined as underdevelopment. He explained that underdevelopment: "is not an original state rather it's a result of economic capture and control of backward regions by advanced metropolitan capitalism" (Frank, 2018).

Therefore, the dependency theorist believes that more advanced societies often expand at the expense of underdeveloped countries. Hence, it may be reasoned that if a rural development project was to be designed from the dependency theorist's perspective, it will encourage implementers to find ways to localize the intervention being proffered. In consequence, the use of local materials will be suggested in comparison to the usage of materials made outside the rural community. This will be encouraged to aid affordability and promote economic innovation amongst rural community dwellers. The components of this theory was applied in a rural water sustainable development project carried out in a village in Nigeria – Adu Achi, Oji River Local Government Area, Enugu State using materials from the local community in building hand-wash facilities to promote sanitation amongst the physically impaired members of the community (US EPA, 2019). The project was a success because many physically impaired were assisted to build using local materials; however, the sustainability of the project has not been assessed.

Hence, the dependency theory may be viewed as a useful lens through which rural development projects may be driven by. This is because research has shown that technology already in the lives of people are more sustainable (Anadon et al., 2016). However, some lapses exist in the dependency theory.

2.2.3 MANAGEMENT THEORIES

Literature has shown that systemic assessment of management has been the order of the day in recent years. In 'The Management Theory Jungle', Koontz (1961) reiterated the importance of understanding that central to management is decision making; a branch that points to all directions but which operates at the core to circumscribe every entity involved in an organizations life-cycle. As a result, management theories have been developed to assist in the attainment of this core process in management. This section will assess notable management theories with the intention of utilizing them as a lens through which sustainable rural development projects may be attained in Sub-Saharan Africa. These are the Social System Management Theory and the Empirical Management Theory.

2.2.3.1 SOCIAL SYSTEM MANAGEMENT THEORY

The social system management theory views an organization as a system that consists of interrelating parts, which propel the whole. Kessler (2013) explains the social system management theory as an attempt to understand how the way of life of social groups work together to form an integrative system. Hence, juxtaposed this explanation alongside sustainable rural development projects; it is an integrative system that consists of rural development professionals who interact and liaise with each other and are willing to ensure that a sustainable rural development project of target is attained through concerted actions.

One of the commendable explanations of the social system management theorist in propelling management over the years is the understanding that organized systems are subject to varying opinions and conflicts which environmental factors create (Koontz, 1961). Hence, this theory has made notable contributions to management over the years. The social system theory also utilizes communication as a vital tool in reaching the desired goal. Luhmann (2006) a recognized system theorist suggested that communication is the elucidating attribute of "the social". This calls to attention the importance of communication at the various stages of rural development projects in Sub-Saharan Africa. This is because the absence of a clear communication channel and actual communication itself result in misunderstanding. And where misunderstanding exists amongst the groups that make up the system, the central goal may not be attained – in this case, a sustainable rural development project in Sub-Saharan Africa.

The social system management theory also acknowledges that conflict may arise from communication, since the whole consists of parts whose perspective on ways of attaining the common goal may not necessarily agree (Wendt, 1999). In his book, Introduction to System Theories, Luhmann (2014) stated that "it is absurd to claim that conflicts are neglected in systems theory. In fact, conflicts are highly integrated systems." (p. 250). This is an important lens to glean from. This is because for there to be a rural development project, which will stand the test of time and attain the life-span in which it was created to attain, the views of various stakeholders have to be understood. These variations of views may result in conflict.

Over the years, research has shown the presence of disparities amongst the parts (stakeholders) in achieving a common goal. Hence, Young et al. (2016) developed a tool to manage this when it occurs. Thus, it is important that rural development projects in Sub-Saharan Africa which aim for sustainability, welcome the views of stakeholders, even if they vary. This is important to ensure that every loose end that may deter the project goal is addressed. In doing this, the project implementers should apprehend the presence of conflict and thereby make preparation for it.

2.2.3.2 THE EMPIRICAL MANAGEMENT THEORY

The empirical management theorist proposes that managerial patterns may be understudied to know what has succeeded and failed over time. This information derived is then to serve as a guide for subsequent projects carried out (Koontz, 1961). The empirical management theory may also be explained as evidence based knowledge on managerial achievements. Hence, the empirical school of thought will support the proposition that the managerial skills display of rural development projects that have been sustained over time be examined and compared against the managerial skills displayed by rural development projects which did not attain their potential life cycle to know patterns to replicate and those not to replicate. Thus, the empirical management theory may be explained as the assessment of experiences, with the intention of generalizing the information obtained from those experiences.

It is important to note some of the patterns successful managers have displayed over the years and vice-versa. This is important because it serves as a known basis upon which other managerial skills may be built – from the known to the unknown. The empirical management theory has the advantage of its perspective being derived from actual occurrences, and not from

abstract events. However, this theory has also been criticized for its limited perspective.

2.2.4 OTHER THEORIES

Other useful theories not categorized under a sub-topic were also assessed in this section.

2.2.4.1 ETHICAL THEORY

Consequence Based (Utilitarian) – in the 18th century Jeremy Bentham (1748–1832) created a system in which actions could be described as good or bad depending upon the amount and degree of pleasure or pain they would produce. Although the theory focuses solely on consequences, results and the pursuit of the common good, the central goal of the theory is to maximize happiness and minimize suffering for most people. Utilitarianism is one of the most influential ethical frameworks which is principally focused on consequences and results (Nathanson, 2007). Habibi (2001) emphasized that the morally "correct" action is one that produces the best (or the most happiness) and the least amount of suffering for the people. Hence, the ethical theorist may not subscribe to conflict from the parts in the process of a rural development project – because it includes some measures of suffering.

Jeremy Bentham is of the view that one chooses an action based upon the probable consequences or result that may occur. In other words, utilitarianism can be thought of in terms of the saying, "the ends justify the means." In this regard, the means are not as important as the end result (Wolf & Broad, 1931). What matters most in this regard is the consequences of an action, if it produces the desired result then such an action is acceptable. That insight is that morally appropriate behavior will not harm others, but instead increase happiness or 'utility.' What is distinctive about utilitarianism is its approach in taking that insight and developing an account of moral evaluation and moral direction that expands on it.

The theory is relatively straightforward to apply in every facet of life. In rural development it is pertinent that whatever action would be taken in a locality should be able to meet up with the desired needs of the people and be sustainable in order to deliver the desired result that would help to improve the lives of the populace or residents of such locality. Also, taking into consideration prior beliefs, the possibility of such action have been accepted across cultures and religions.

2.2.4.2 NEO-CLASSICAL THEORY

Neo-Classical theory, also known as the human relations and behavioral science approach is a theory that was built on the base of classical theory by George Elton Mayo (1890-1949). It modified, improved and extended the classical theory (Rajan & Viji., 2016). Classical theory concentrates more on job content and management of physical resources while the Neo-Classical theory gives greater emphasis to the man behind the machine and stresses the importance of individuals, as well as group relationships in the workplace (List, 2004).

The Neo-classical theory posits that an organization is the combination of both the formal and informal forms of organization. The informal structure of the organization formed due to the social interactions between the workers gets affected by the formal structure of the organization. Usually, the conflicts between the organizational and individual interest exist, thus the need to integrate these arises. The Neo-classical theory asserts that an individual is diversely motivated and wants to fulfil certain needs and communication is an important yardstick to measure the efficiency of the information being transmitted from and to different levels of the organization. Teamwork is the prerequisite for the sound functioning of the organization, and this can be achieved only through a behavioral approach, that is how individuals interact and respond to each other.

In rural development, when needs assessments are being carried out, all stakeholders including chiefs, district heads and most influential individuals in the community are involved. Thus every decision taken before any activity is being carried out is in the best interest of the community at large. Before developmental work is carried out, community involvement is key as they serve as an integral part of the workforce as well as stakeholders. Involving the people gives everyone a sense of belonging and the project to be done is seen as ‘ours’ not just any project. The human relation approach therefore serves as a stitch in time for cementing cohesion between the community and those involved in development.

2.3 GAPS IN THEORY

The theories discussed above have been useful in understanding the methodologies that may be applied in carrying out sustainable rural development projects in Sub-Saharan Africa. However, these theories are not very comprehensive. Many of them consist of gaps that must be accounted for. Hence, some of the gaps observed are discussed below.

2.3.2 MODERNIZATION THEORY

In consequence, the failure of the modernization theory in achieving its aim of propelling rural communities over the years, may be traced to its supercilious assumptions that what works in one rural community will also work in another. Frank (1977) in his analysis of modernization theory explains that modernist theory is specious because it fails to give a true picture of the relationship between more developed countries and less developed countries – of which rural Sub-Saharan African communities are the latter. By a specious depiction, Frank (1977) suggests that the intention of more developed communities in relating with rural communities in Sub-Saharan Africa was to propel their own communities and not necessarily to assist the less developed communities in reaching their highest apogee. Hence, this intention was reflected in the means by which more advanced communities opted to assist less developed communities in solving some of the social maladies observed.

The postulation put forward by Frank (1977) is rational, because if the intention was primarily focused on the rural communities interacted with, the down-ward approach instigated by the modernization theorist may not have been used. Over the years, even as far back as the 1950s research showed that one of the most effective ways to assist seemingly under-developed communities is to inculcate their views in the solution being proffered to them (Przeworski & Limongi, 1997). This the modernization theory fails to do, because it does not give room for the aforementioned. In consequence, the modernization approach to rural development projects lean towards the ethical involvement of stakeholders – in which the opinion of stakeholders is not really utilized, however, it only appears as though they will be utilized. Sadly, many rural development projects enacted in Sub-Saharan Africa are still guided by the modernization theorist school of thought (Stockemer & Sundström, 2016) (Shannon, 2018).

Hence, one wonders why a failed cycle of rural development projects are being recorded continuously in many Sub-Saharan African countries. Lessons must be learnt from the lapses of the modernization theory. These lacunas should guide rural development implementers in the chosen strategy applied in enacting rural development projects to bolster project success. This is important because repeatedly, research has shown that the imposition of rural development plans by implementers does not propel the success of rural development projects in Sub-Saharan Africa (Belda-Lois et al., 2011). As a result, it will be beneficial to the body of research on rural development in Sub-Saharan Africa for a model that gives room to the oddity

synonymous to distinct rural communities, which fosters the success of rural development projects.

2.3.3 DEPENDENCY THEORY:

There are some questions that need to be asked, which the dependency theory has failed to address as pertaining to the development of sustainable rural development projects in Sub-Saharan Africa. One of such is the interdependence of societies. In 'Interdependent infrastructure network restoration from a community resilience perspective', Barker et al. (2018) expounded on the interdependence of communities. Some materials needed in the implementation of rural development projects may not be available in the community where the project is being implemented. Thus, implementers may have to bring such items from urban centers or neighboring communities for the project to succeed or be sustainable. This indicates that a community either rural or urban that operates a closed economy may not be able to maximally utilize her internal resources. This is supported by Robertson & Keynes (1920) position which indicates that a society's prosperity is dependent on the external surroundings. The importance of this statement holds true and this is supported by the SDGs, which has as its 17th goal, the Revitalization of global partnership for sustainable development (Global Partnerships, 2019).

This suggests the need for a centered model which guides the processes involved in the implementation of rural development projects that may be sustained over time – especially a model that integrates the nuances peculiar to interventions and that understands that the resources of communities may need to be utilized in reaching the desired goals. This study plans to fill this knowledge gap.

2.3.4 SOCIAL SYSTEM THEORY

The social system theory has also been criticized for some lapses which it has failed to take cognizance of. Such as, the social system theorist who suggests that conflict may be controlled by the introduction of a loose structure (Kernick & Powell, 2018). However, there seems to be a gap in understanding what a loose structure really is, and if the general terminology for looseness which suggests 'easy-fitting' is meant, it will be useful to understand how loose the

structure ought to be to attain the eventual consensus required amongst stakeholders.

Hence, there is a need for an integrative framework that embraces the strengths and weaknesses of the social system theory that will address how these may be applied in carrying out sustainable rural development projects in Sub-Saharan Africa.

2.3.5 EMPIRICAL MANAGEMENT THEORY

The empirical management theory has been largely criticized because of the variations which exists in processes and as a result eventual outcome. The empirical theorist forgets to put into consideration the nuances intertwined in the project. Perhaps, that rural development project 'G' applied certain methods A and obtained result B, does not mean that rural development 'R' will apply the same method A and obtain result B. Certain factors may be at play in the rural community where project 'G' was carried out. Those factors may not be in community 'R'. Hence, there might be variations in the results obtained.

As a result, there is a lacuna in literature on how the strength of the empirical management theory may be maximized while controlling for its strengths. It will be useful to have a model that recognizes that community subtlety may be at play before implementing methods from other projects.

2.3.6 ETHICAL THEORY

The perspective of the ethical theorist has contributed to the overall understanding of probable ways to carry out sustainable rural development projects in Sub-Saharan Africa. This has been done by explaining that actions that yield results are to be taken by project implementers to ensure that the goal is attained. Nevertheless, the ethical theoretical perspective would have been more useful if clear cut guides were suggested on boundaries that should not be crossed in order to attain project goals. Nozick (2014) suggests that the lack of boundaries fosters anomaly and anarchy.

Additionally, where there are defined laws or guides, project successes or failures may not be measured successfully. Also, the implementers of such projects may not be able to recognize when an aspect of the project may have gone wrong – because there are no defined measures

for project success.

Also important is this, although the theory focuses solely on consequences, the central goal of the theory is to maximize happiness and minimize suffering for most people. The gaps in this theory are evidently seen in rural development as high rates of project failure do not minimize suffering for the people.

Hence, this suggests the need for an integrative framework that puts this omission into perspective when developing sustainable rural development projects in Sub-Saharan Africa – which is what this study attempts to understand.

2.3.7 NEO-CLASSICAL THEORY

The Neo-classical organizational theory asserts that an individual is diversely motivated and wants to fulfil certain needs. The communication is an important yardstick to measure the efficiency of the information being transmitted from and to different levels of the organization. Findings from the research revealed the lack of effective communication and inclusion amongst stakeholders.

2.4 STRATEGIES TO RURAL DEVELOPMENT PROJECTS

Research shows that rural development projects are either driven from the top-down, down-up or a mixed-method approach to rural development is employed. This section will give some explanation on this.

2.4.2 A TOP-DOWN STRATEGY TO RURAL DEVELOPMENT

A top-down approach may be explained as a rural development project design in which the decisions made concerning a rural intervention to aid development is driven independently by funders or government parastatals, but not by the rural dwellers themselves – the primary recipients. Literature has shown that this strategy may not be the most favorable, because it has failed to assist rural development projects to improve the living conditions of rural dwellers, in rural communities where the project is implemented (Binns, Hill, & Nel, 1997). Tony Binns, like many researchers, indicated that one of the primary reasons for the failure of the top-down approach in meeting the target set, is because it utilizes and ignores the complexities of rural

communities: “socioeconomic and cultural contexts in which indigenous livelihood and production systems function” (Hill, 1986).

The first project conducted by FADAMA, a nationwide rural development project in Nigeria, applied the top-down approach. This project was executed between 1993 and 1999. However, the FADAMA in Nigeria was unsuccessful. Many rural development projects have switched to the utilization of a more inclusive approach, because of the failure of the top-down strategy. Additionally, research has introduced better approaches like the down-upward strategy, which have utilized a more inclusive approach, and contributed to more successes recorded in rural development projects in comparison to the top-down strategy (Binns et al., 1997).

2.4.3 DOWN-UPWARD APPROACH TO RURAL DEVELOPMENT

Studies show that a shift occurred from the top-down strategy, which employs a dictatorial strategy in comparison to the down-ward strategy which adopts the Participatory Rural Appraisal Methodology (PRA) (Binns et al., 1997). One of the salient characteristics of the PRA is its ability to take into consideration the complex and varying dynamics of a rural community (Mustanir & Lubis, 2017). This approach pays attention to the opinions and needs of rural dwellers before rural projects are implemented.

Research indicates that rural projects that use this approach often record a higher level of success in comparison to rural development projects which utilizes the top-down approach. However, literature also suggests that caution is to be applied when utilizing this approach – because, rural communities may not have full cognizance of projects that may be appropriate in propelling rural development in their communities. According to Tony Binns et al. 1997, common PRA techniques utilized for rural development projects were listed: dialogue with key informants, group discussions, case study observation and stories, systematic walk with key informants in locales of interest (transient walks), seasonal calendar inquiries – this entails finding out from community member what a year is like in their communities across seasons, trend and changes analysis – in which community members tell their stories over time with diagrams or through local materials and participatory mappings – which entails community members giving details of their community using available resources in the community (Binns et al., 1997).

The FADAMA II project utilized the down-top strategy in implementing its projects in rural communities of Nigeria. It reported a significantly higher success rate in comparison to FADAMA I, which utilized the top-down strategy (Ibeawuchi & Nwachukwu, 2010) (Adegbite, Adubi, Oloruntoba, Oyekunle, & Sobanke, 2007).

2.4.4 MIXED APPROACH TO RURAL DEVELOPMENT

This approach utilizes both the top-down approach and the down-upward approach. Rural development projects that have utilized this approach have reported some success. The mixed approach to rural development projects draws knowledge from stakeholders like the funders or government parastatals. This method also gives the opportunity for rural dwellers to voice their perspective on a rural development project – sometimes at the design level (Binns et al., 1997) (Mustanir & Lubis, 2017). These positions are then combined to reach a design as it relates with rural project design and implementation – and sometimes, monitoring.

2.5 SUMMARY

Van der Ploeg et al. (2000) reiterate the call for an integrative framework through a postulation on the unavailability of integrative definitions for rural development and similarly, Allanson (1996) submits that rural development entails several complexities including a plethora of social and cultural factors and the need to ensure that future work in rural development results in a comprehensive understanding of the multi-dimensional and relational nature of rural development (Van Der Ploeg et al., 2000). Thus this chapter provided a comprehensive understanding of related concepts to sustainable rural development projects.

The concepts defined helped in focusing the augment for the study and provides contextual information as to how the concepts will be used in the study. For instance, by exploring the elements of sustainability, the study finds that there are three pillars i.e. social, economic, and environmental sustainability. From a sociological and anthropological standpoint, projects are primarily social interventions, and thus fall under the pillar of social sustainability. This therefore makes it easier for the study to focus on the components of project sustainability which is highly influenced by social inclusion.

The theories reviewed in this chapter include development theories (which help in

understanding the best methods by which society may reach her desired changes), management theories (which form a basis for the successful implementation of projects), ethical theories and neo-classical theories. Several gaps in the theories (which could lead to project failure if adopted) were highlighted, whereas the prominent gap is lack of inclusion and communication amongst stakeholders. This finding validates the need for an integrative framework and CMM which this research aims to develop. This chapter also reviewed the three strategies to rural development projects. The top-down strategy was found to be the least favorable because it ignores the complexities of rural development and is not inclusive. While the down-top and mixed strategy were found to record more successes due to their inclusive characteristics in project design and implementation. In the following chapters, this research explores the strategy that is mostly applied in Nigeria and SSA, as this would be useful in the development of the framework and CMM. Additionally, the next chapter goes deeper to review related to sustainable rural development, particularly in Nigeria and SSA.

CHAPTER THREE: SUSTAINABLE RURAL DEVELOPMENT PROJECTS' PRACTICES IN SUB-SAHARAN AFRICA

3 INTRODUCTION

The aim of this chapter is to review rural development projects in the geographical scope of the project i.e. Sub-Saharan Africa and Nigeria, and the key areas that support the implementation/sustainability of these projects. The section begins with an overview of SSA, then Nigeria. These can be found in sections 3.1 and 3.2. In section 3.3, the paradigms of rural development in SSA are elucidated upon to show the attempts that have been made to develop rural areas in SSA, and the gaps in their implementation. The paradigms include the modernization paradigm, green revolution paradigm, integrated rural development paradigm, structural adjustment policies paradigm, poverty reduction strategy paper, millennium development goals paradigm and sustainable development goals paradigm. Section 3.4 reviews the International Organization for Standard (ISO) and SSA membership because the ISOs set standards for and regulate building projects for their member countries. This discussion is followed by standard building codes in SSA in section 3.5.

After discussing these key areas that support the implementation of rural development projects in SSA, this chapter goes on to review notable rural development projects in SSA – especially Nigeria – on education, water and sanitation, road construction, agriculture, electricity and health care. The causes and mitigation of rural project failures in these sectors are also reviewed. These are found in section 3.6 and 3.7. In section 3.8, the effect of appropriate planning and implementation, in Nigeria is reviewed. Section 3.9 discusses rural development projects' stakeholders in SSA. All of these sections are important in meeting the second, third and fourth objectives of the study. The chapter concludes with a summary of findings from the literature reviewed.

3.1 SUB-SAHARAN AFRICA

Sub-Saharan African countries account for around $1/7^{th}$ of the world's populations – with about ¾ of the population residing in rural areas (Sub Saharan Africa Population, 2019). This is worth noting because about 63% of the Sub-Saharan African population live in rural communities (Chanel, 2016). In addition to this, a significant number of Sub-Saharan Africans have been forecasted to live in rural communities in the next fifty years (FAO, 2019). It is therefore

important to understand the dynamics at play in rural communities in Sub-Saharan Africa.

Sub-Saharan African countries are those situated in the Southern region of the Sahara (UN-DESA Population Division, 2017). Although the actual number of Sub-Saharan African countries varies by classification, the UNDP's listing of Sub-Saharan African countries lists forty-six countries: these are listed in the table below:

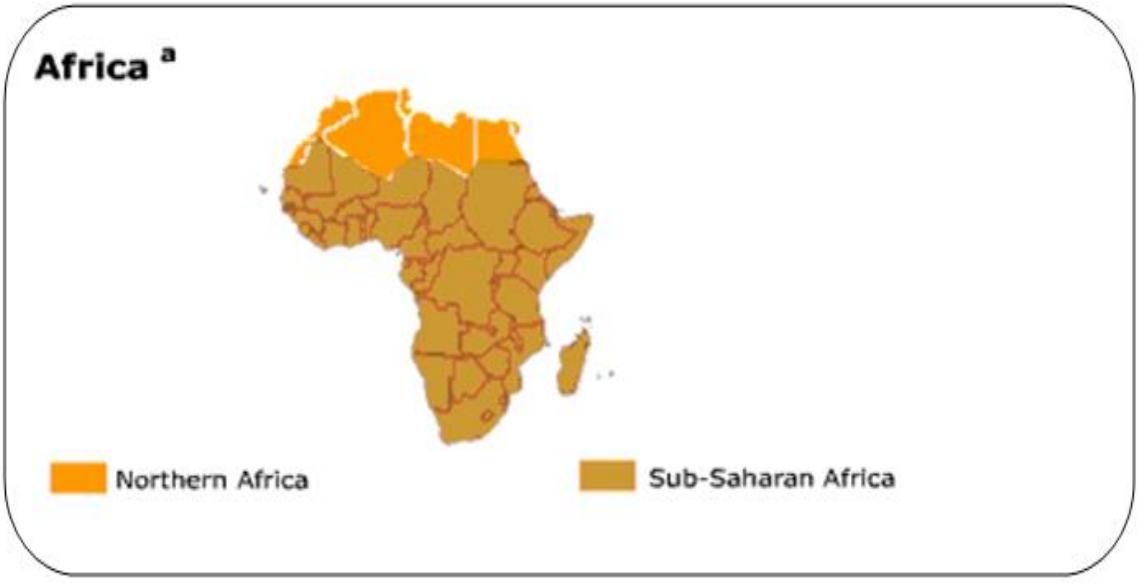
Table 3. 1: Sub-Saharan African countries

Angola	Democratic Republic of Congo (DRC),	Guinea-Bissau	Mozambique	South Africa
Benin	Republic of Congo	Kenya	Namibia	South Sudan
Botswana	Cote d'Ivoire	Lesotho	Niger	Swaziland
Burkina Faso	Equatorial Guinea	Liberia	Nigeria	Tanzania
Cameron	Eritrea	Madagascar	Rwanda	Togo
Cape Verde	Ethiopia	Malawi	Sao Tome and Principe	Uganda
Central African Republic	Gabon	Mali	Senegal	Zambia
Chad	Gambia	Mauritania	Seychelles	Zimbabwe
Comoros	Ghana	Mauritius	Sierra Leone	

Source: UNDP in Africa (2019)

Sub-Saharan African is further sub-divided into regions – Eastern, Middle, Northern, Southern and Western Africa (United Nations Statistics Division, 2019.). For a visual understanding of the geographical placing of Sub-Saharan Africa, peruse the map in figure 2 below.

Figure 3. 1: A map of Sub-Saharan countries



Culled from the United Nations Statistics Division – Millennium Indicator

Despite her spatial differences as indicated by the sub-divisions into Eastern, Middle, Northern, Southern and Western Africa – Sub-Saharan countries are also very similar in characteristics. Most Sub-Saharan African countries are characterized by a youthful population; have large family sizes in comparison to neighboring continents; were all colonized at some point; reports high level of migration from rural to urban settlements; account for a significant number of the world's poorest population; have a slow-growing democratic government; and some Sub-Saharan African countries have some level of civil unrest (Sub-Saharan Africa, 2018).

SSA also accounts for a substantial number of adverse cases which the Sustainable Development Goals (SDGs) aims to palliate by 2030 (Strasser, Kam, & Regalado, 2016; Callister & Edwards, 2017). The winding-up of the MDGs in 2015 brought about the seventeen United Nations Sustainable Development Goals (SDGs) which builds on the success of the Millennium Development Goals. (United Nations, 2016). The Sustainable Development Goals are widely described as a three pillar model that seeks to balance Social, Economic and Environmental targets (E. Holden, Linnerud, & Banister, 2017). Additionally, the SDGs promote a decent life for all humans by focusing on Economic Development, Social inclusion and environmental sustainability (Birch, 2015). Furthermore, the first target of the second goal - End hunger, achieve food security and improved nutrition and promote sustainable

agriculture, is aimed towards increasing investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services (United Nations, 2015).

Some of the MDGs driven implemented projects have failed, as beneficiaries can no longer utilize or access these projects. Studies show that if the adverse living condition in rural SSA is not addressed, the SDGs goals targeted for 2030 will not be achieved. A recent report from the United Nations Educational Scientific and Cultural Organization (UNESCO) shows that in comparison to other regions of the world, SSA records the highest rate of persons excluded from education (UNESCO UIS, 2018). Studies also show that rural dwellers in SSA make up most persons with the least years of education (Roby, Erickson, & Nagaishi, 2016). Hence, if the 4th global goal: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" is going to be attained, the maimed educational system in rural SSA must be addressed (OECD, 2016).

The information presented above is salient, and illustrated by a 2014 project mapping study carried out in Bayelsa State, Nigeria (a largely riverine state with over 80% made up of rural communities) which showed that 37% of the implemented projects were non-functional. These projects include Education, Health, Water & Sanitation projects, to name a few (OSSAP-MDGs, 2014). From the foregoing, there is a need to understand rural developmental projects which have been carried out over the years in Sub-Saharan Africa – with the intention of comprehending why such projects failed or succeeded. This information should then guide in the development of futuristic design and implementation of sustainable rural development projects.

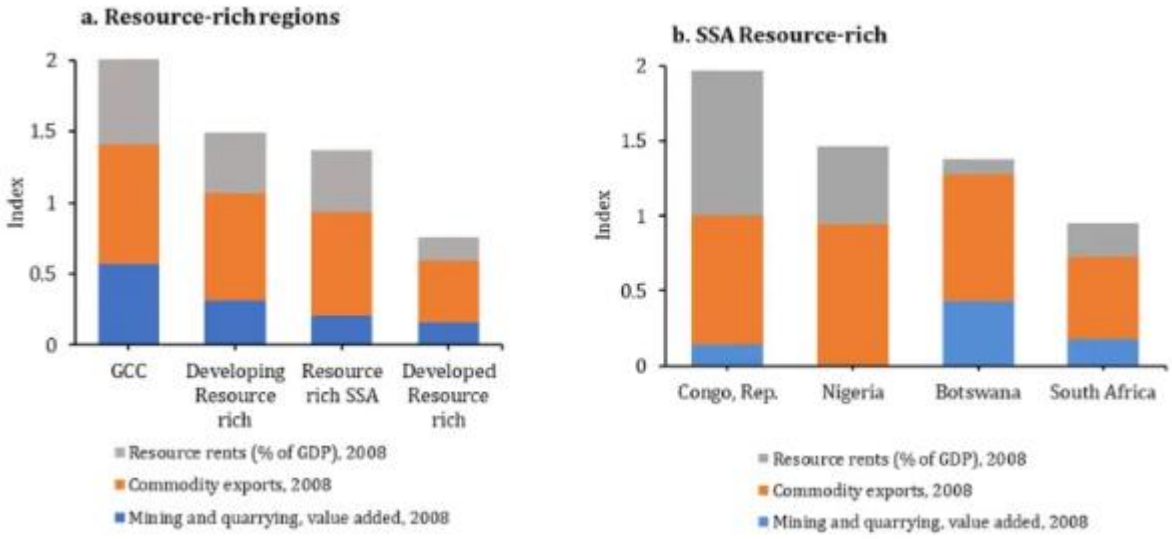
3.2 NIGERIA: AN EXAMPLE OF SUB-SAHARAN AFRICA

Smith in his book, "Third World Cities in a Global Perspective: The Political Economy of Uneven Urbanization", proposed that an understanding of the political and geo-social dimensions at play in Nigeria serves as a guide in understanding other African countries (Smith, 1996). This postulation is not surprising: since Nigeria houses the largest population in SSA – and hence a significant number of rural dwellers Inclusive. Nigeria also possesses about five hundred languages and two hundred and fifty ethnic groups (250) within her (Omoniyi, 2012)

(Fajobi & Akande, 2019). In 2017, Nigeria's population was reported to be about 200 million, her GDP was 375.8 billion USD – which is within the scope of other Sub-Saharan African countries GDP. This further illustrates that a lucid understanding of the workings in Nigeria will explain other SSA countries, because of their shared similarity in characteristics.

In addition to this, many rural areas in Nigeria, like many other SSA countries, have large expanses of land and rich soil, filled with natural resources – and the man-power required to maximize these resources (Hodler, 2006) (Sala-i-Martin & Subramanian, 2013). For instance, Nigeria is the highest producer of Shea-nut in the world. This Shea-nuts are picked and processed for exportation in rural areas of Niger, Kwara, Zamfara to name a few and by rural dwellers (Koloche et al., 2016) (Shitu & Popoola, 2017). New Guinea, like Nigeria, is rich in crude oil whilst Angola is recognized for diamond. Uganda, on the other hand, has unexploited profitable minerals. Most of these natural resources are in the rural region of these SSA countries (De Wit et al., 2016) (Kitamura & Managi, 2017). However, a significant proportion of these resource-rich rural communities, for example, in Nigeria live a low quality of life devoid of electricity, clean water, a functional health system and other essentials. The histogram chart below shows a visual comprehension of the aforementioned.

Figure 3. 2: The distribution of natural resources



Source: The United Nations Account Statistics, UN Com-trade and WDI (2009)

Hence, many development projects have been carried out in the rural regions of Nigeria, to

improve the dwellers quality of life. A few of these developmental projects have brilliantly improved the living condition of rural dwellers where they were implemented, whilst the majority have not. However, research illustrates that even successful projects implemented in rural Sub-Saharan African communities like Nigeria are short-lived (Montgomery, Bartram, & Elimelech, 2009; Sah & Negussie, 2009; Feron, 2016). This suggests the presence of a gap in past approaches implemented in Sub-Saharan Africa, on the best models to be applied when developing and implementing long-lasting rural sustainable projects. Hence, there is a need to fill this gap that exists in knowledge.

3.3 THE PARADIGMS OF RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA

The paradigms to be elucidated upon came into being from attempts made over the years by the global community to improve the standard of living of rural dwellers across the world. This section presents rural development paradigms in chronological order. However, some of the paradigms guided rural project development and were implemented concurrently.

3.3.2 THE MODERNIZATION PARADIGM

The 1950s and 1960s ushered in the modernization paradigm – this paradigm spanned for about a decade before another was introduced. The modernization approach was born out of the realization that the productive use of capital is more important than the availability of capital itself. It observed that while the design of developmental projects in Sub-Saharan Africa was important, the implementation of projects successfully played a vital role in a project's success.

The societal milieu was seen to interplay with successful project implementation. Thus, the modernization paradigm subscribed to a change in customary values, disposition and social practices (Leys, 1982). The modernization approach has a central reliance on the superiority of the western world – America and Europe in particular – in contrast to Sub-Saharan Africa (Kwame, 2016), meaning that attempts were made to modernize rural communities, with the intention of improving productivity and growth. As stated in the "Approaches for systematic planning of development projects", the modernization Paradigm has a "large-scale farm development and agricultural modernization" of rurality (JICA, 1996). It agrees to the

introduction of western technologies and ways of life to rural dwellers as a mechanism for the enhancement of higher productivity – especially of Agricultural exported produce.

Literature shows that the green revolution paradigm was short-lived because it did not give room for rural communities to engage in the projects being implemented. This calls attention to the importance of fully understanding the dynamic of beneficiaries in relations to rural project implementation in Sub-Saharan Africa.

3.3.3 GREEN REVOLUTION PARADIGM

The 1960s and 1970s heralded the paradigm of the Green Revolution (Patel, 2013). The green revolution ushered in the fertilization era in which science was used to propel agricultural productivity. Areas such as Asia and Southern America benefited largely from the green revolution. However, comparing the success of the green revolution in Sub-Saharan Africa to other regions across the world where success was recorded, the Green Revolution failed: because the Green revolution did not yield as much crop produce in the Sub-Saharan region (Ejeta, 2010).

This failure in Sub-Saharan Africa was linked to a culture of corruption, the lack of infrastructure: such as irrigation and civil unrest which the modernization era tried to change, but was unsuccessful (Kwame, 2016). Hence, it will be beneficial to find out why some of the social factors that drive rural development project failure in Sub-Saharan Africa have remained the same over time.

3.3.4 INTEGRATED RURAL DEVELOPMENT (IRD) PARADIGM

The 1970s ushered in the Integrated Rural Development (IRD) Paradigm. The IRD was introduced because of the failure of the paradigms in meeting the needs of all rural inhabitants in Sub-Saharan Africa. Particularly, export crops took an upward dive in Sub-Saharan Africa. However, smallholders Agriculture grew at a much slower rate. The aim of the IRD was to reach poor farmers either directly or through structured procedures in order to increase their quality of life. Poor farmers were protected: by government agencies through floor prices implementation and regulation (Ruttan, 1984). The Agricultural produce of smallholder farmers was also marketed to enhance visibility. The World Bank believed in this paradigm because she embarked on a rural development strategy which shifted its financial support to drive

Agricultural products amongst small scale farmers who most domicile in rural communities (Haggblade, Hazell, & Brown, 1989). However, the IRD was not as successful in Sub-Saharan Africa in comparison to other regions of the world where success was recorded.

The limited success in Sub-Saharan Africa points to the presence of weak institutions and the dependent nature of the IRD on expatriates. This is because the IRD designed and implemented most of her program using experts from donor countries (Binswanger, 1994). Hence, this suggests that rural development like the IRD may be more successful if local or indigenous experts are employed in the process of rural development in Sub-Saharan Africa. However, this postulation is yet to be tested across board.

3.3.5 STRUCTURAL ADJUSTMENT POLICIES (SAP) PARADIGM

The 1980s ushered in the Structural Adjustment Policies (SAP) Paradigm. The SAP was termed the "economic panacea" instigated to solve the global economic upheavals experienced in the 1980s. The SAPs are guidelines and policies put in place by the World Bank and the International Monetary Fund which countries who want to qualify for loans must follow. The SAP subscribes to a reduction in government spending, removal of export and import constraint, and the devaluation of the country currency against the dollar. The SAP was also set in place to ensure that country recipients pay back their loans from international monetary organizations (Riddell, 1992; Ahmed & Lipton, 1997).

However, literature suggests that the SAP was not favorable to rural development in many Sub-Saharan African countries, because it did not improve their quality of life. Specifically, many governments support schemes like the land extension, subsistent farmers support and other developmental projects initiated to alleviate rural poverty in Sub-Saharan Africa were altered with the introduction of SAP. Consequently, the support given to the rural poor was seized. This brings to the fore the need to understand the intervention being implemented. This may be done using a model to serve as a guide. However, outputs from rural project intervention have shown the need for a model which addresses the salient determinants of rural project interventions. This study aims to fill this gap in knowledge by filling this lacuna in literature.

3.3.6 POVERTY REDUCTION STRATEGY PAPER (PRSP)

Around the 1990s, there was a global plea to free poor countries from their debts as a result of

SAP. The PRSP was put in place as a framework to ensure that the relieved debts were used to alleviate the poor living conditions of poor communities, especially rural poverty. However, there was a caveat put in place before debits were relieved and aid granted to developing countries. Inherent in the PRSP is the requirement to engage indigenes in the program plans (Fayissa & Nsiah, 2010; Qayyum, Javid, & Arif, 2013).

Illustrations from literature showed that the PRSP lacked defined measures for community engagement. This deficiency contributed to its failure in alleviating poverty amongst its target population, especially in Sub-Saharan African countries because the right community members were not engaged. Again, this points to the need for an integrative framework that takes into account the easily missed factors required in the development of sustainable rural development projects in Sub-Saharan Africa. This study intends to contribute to the literature that helps fill this lacuna.

3.3.7 MILLENNIUM DEVELOPMENT GOALS (MDGS) PARADIGM

The year 2000 ushered in the paradigm of the Millennium Development Goals (MDGs). The MDGs did not reflect mistakes made by other paradigms, in that it adopted more enthusiastically the contributions of implementing countries in the MDGs (Haines & Cassels, 2004). Focal in the MDGs was the global reduction of extreme poverty – within fifteen years. This paradigm has reported the most success so far (Easterly, 2009). These successes were illustrated in reports from the United Nations Development Program which stated that: "Since 1990, the number of people living in extreme poverty has declined by more than half. (MDGs, 2016). Also, a study carried out by Bain et al reported a 20% increase from 1990 to 2011 in rural dwellers' access to clean water (Bain, Wright, Christenson, & Bartram, 2014). However, the MDGs paradigm has received some criticism because countries where activities of the MDGs were implemented have not experienced the same level of developments (Caprani, 2016).

This criticism of the activities of the MDGs seems unwarranted. Nevertheless, attention should be focused on the factors that have propelled rural project failures or success in the MDGs. This is because the MDGs gave considerable room to implementing countries on program activities.

3.3.8 THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

The year 2015 ushered in the paradigm of the Sustainable Development Goals (SDGs). The SDGs are a progression of the MDGs and aims at attaining many nils; which are nil hunger, poverty, HIV/AIDS and prejudice against girls and women globally (ICSU, 2015). The SDG is quite similar to the Integrated Rural Development (IRD) paradigm because it believes in the interdependence of goals to derive the desired rural developmental change. To illustrate, the SDGs hold that when educational goals are achieved in the rural areas, gender equality will also be reached (Nilsson, Griggs, & Visbeck, 2016). Like the MDGs, this paradigm has a fifteen-year timeline set to achieve some of its objectives. What this means is that the full effect of the SDGs will be fully assessed by the year 2030. Like the MDGs, the implementation is country-specific: in that, the government of each country adapts the SDGs objectives to fit into the country's plans and policy.

However, the milieu of the MDGs is also at play in the SDGs: that is, the unequal impact of the SDGs differs by country. This brings to the fore the need to understand the determinants of the successful implementation of the SDGs activities in rural communities' in Sub-Saharan Africa. This information will guide in the development of a model for sustainable rural development projects in Sub-Saharan Africa – which this study aims to achieve.

3.4 INTERNATIONAL ORGANIZATION FOR STANDARD (ISO) AND SUB-SAHARAN AFRICAN COUNTRY MEMBERSHIP

The International Organization for Standard (ISO) is an unaffiliated, non-governmental organization. It consists of 164 members. Membership is country based. Nigeria as a country, is a member of ISO (International Standard Organization, 2010). ISO was established in 1947. It is an affiliate organization of the United Nations, whose headquarter is situated in Geneva. The ISO set standards to ensure global propriety. Since inception, over 20000 standards have been set, ranging from Agriculture through manufacturing to healthcare – to name a few. The ISO membership is in three categories. First, member bodies as nations. Second, correspondent members who have not set up their national standardization organization. This level of membership does not allow participation in ISO standard declarations. However, information from such is publicized and passed to correspondent member countries. The third category of membership is for countries with small economies. This third level of membership is the

subscribed members who pay reduced fees, they do not participate in the declarations of the ISO. However, they are permitted to follow the standards set by the ISO. Hence, subscription into the ISO is dependent on the country's trade figure and Gross National Product (G.D.P) (International Standard Organization, 2010). Hence, the ISO makes rooms for willing countries to participate.

The SSA countries, which are member countries of ISO are: Algeria, Botswana, Congo, The Democratic Rep. of Côte d'Ivoire, Ghana, Kenya, Nigeria, Tanzania, and Zimbabwe. The correspondent members are: Angola, Benin. Burkina Faso, Eritrea, Guinea, Guinea-Bissau, Malawi, Mali, Mozambique, Namibia, Niger, Rwanda, Senegal, Swaziland, Togo, Uganda and Zambia whilst subscriber members are: Burundi and Lesotho (ISO AND AFRICA, 2019).

However, literature indicates that ISO has not been able to successfully regulate building activities in rural SSA (Dupendant, 2016). Several barriers responsible for this are: weak institutional framework, ineffectiveness of donor-funded programs, lack of human and financial resources, low participation in the development of ISO management standards, and corruption (Tayo et al 2018). Literature also illustrates that many rural development projects carried out in SSA are often carried out using substandard products, which could hinder the sustainability of these projects (Takeuchi, 2010). Many rural development projects and models adapted for rural development projects do not put this lapse into consideration during planning and implementation.

3.5 STANDARD BUILDING CODES IN SUB-SAHARAN AFRICA

Building codes may be explained as the minimum agreed level of standards as concerning the construction of building and erection of structure to enhance national safety (Erastus & Wuchuan, 2014). The ISO helps to regulate member countries' construction projects, to safeguard public health and ensure safety as it pertains to construction. However, each country adapts ISO's codes for construction into the country's existing system. Nigeria had the National Building Code (NBC) established in 1987 (Ministry of Housing and Urban Development, 2006) and the NBC controls construction in Nigeria. The NBC makes known the least acceptable standard necessary to keep life and property safe. Also, it adapts the internationally approved standards for building from the stage of design, approval, construction, and other required processes for construction – which is regulated by the ISO

(International Standard Organization, 2010).

The NBC is made up of four fragments: a. administration; b. classification and requirements; c. enforcement and d. schedules and references (Nigerian Institute of Building, 2019). The promulgation of NBC is very crucial in developing Nigeria's building industry, however, NBC has not been in full effect because it is yet to implement its goals. This delay has been traced to the lack of an approved legal framework to aid implementation (Amasuomo, Atanda, & Baird, 2017) and lack of an enabling environment for its operation. Without the implementation of the NBC in Nigeria, some human activities in the built environment are carried out haphazardly and carelessly, leading to unsatisfactory conditions of the built environment (Abiola and Makonjuola, 2005). Evidence can be seen in the rampant building collapses and fire breakouts that continuously claim properties and lives, and hinder the sustainability of the environment (Mbamali, 2007). Thus in Nigeria, there has been a lacuna in the regulation of construction on all government levels. Hence, it will not be amiss to deduce that many rural construction projects in Nigeria are carried out using substandard construction materials (National Commission Planning, 2010; Adebowale, 2014). The postulation on the use of weak building materials in Nigeria is not amiss because repeatedly, the news of government primary and secondary school buildings' collapsing which were constructed within a short time is being reported – in rural communities especially.

Kenya, unlike Nigeria, has a more sophisticated building code which has been approved for execution by law. This came into effect legally in 1968. However, reports suggest that poor execution of the building code has been the practice over the years in Kenya (Sanewu and Mutuku, 2011). The poor execution of the building code has resulted in the collapse of buildings due to the construction of sub-standard buildings. The building code in practice was formulated locally from the British building code, and local government authorities in Kenya were assigned the responsibility for its execution (Ministry of Local Government, 1969). Whilst Kenya is in control of the mechanism by which the codes are implemented, the codes reformation is guided by the global building code. Kenya's building code like Nigeria provides a guide on how buildings are to be designed and constructed. Reports indicate that the code is broken down into categories such as sitting and spacing of materials for building and building itself (Erastus & Wuchuan, 2014).

However, this sub-division has been critiqued for its lack of clarity on the roles it sets out to perform. Kenya's building code has been critiqued for many inconsistencies. For example, the effective measurement of units in Kenya is in meters, meanwhile, the international measurement of units in the by-law of the building code are in inches and feet. As a result of this inconsistency, there is the threat of under or over calculating measurement. Another challenge posed by the building code is the design aspect of the code. When Kenya passed its building code into law, materials in the market for construction as at that time were used as measures. Hence, one wonders if the proliferation of materials for construction has made the Kenyan government question the effectiveness of the static building code still in use. Another porosity of Kenya's building code is the lack of a qualified enforcement agency to enact the tenets of the building code. Examples include, corruption, sheer negligence by local authority which have been viewed as blocks to the lack thereof. The effect of this in Kenya is the demise of Kenyans from avoidable death such as the collapse of buildings and poor design structure which failed to create an escape channel when there was a fire outbreak. Rural and poor communities in Kenya have borne the brunt of the shortcomings of the building code. Thus, a need for the review of existing building codes is suggested to ensure that solid structures and buildings are erected in rural communities which inhabit the most vulnerable group (Building Code, 2019.) (Erastus & Wuchuan, 2014).

A critical review by Worku (2014) consisting of the design of Seismic code suggests that Ghana, Uganda, and Kenya lack building codes that guarantees the construction of safe buildings and structures. Literature also indicates that Seismic codes known as earthquake codes, which are codes to safeguard buildings and structures against the effect of earthquakes are not utilized in buildings in constructing buildings in many Sub-Saharan African countries (Iervolino, Galasso, & Cosenza, 2010). Thus, it can be deduced from literature that most rural SSA communities have not been able to translate the building codes tenable in practice. And where those building codes are tenable, they are not well monitored. Literature further suggests that where they are monitored, there is a discrepancy in the actual practice of measures of construction being used and the measures of construction stated in the building code.

3.6 NOTABLE RURAL DEVELOPMENT PROJECTS IN SUB-SAHARAN AFRICA

Since the early 1950s, efforts have been made by the global community to level up development across the continents of the world. However, using measures of development – such as education, water and sanitation, road construction, agriculture, electricity and health care – as guided by developmental paradigms, Sub-Saharan Africa as a sub-continent continues to report low and slow rural developmental growth (Nilsson et al., 2016; Oleribe & Taylor-Robinson, 2016; Hák, Janoušková, & Moldan, 2016).

This study sets out to access significant projects which have been carried out in rural communities in Sub-Saharan Africa – especially Nigeria – on education, water and sanitation, road construction, agriculture, electricity and health care; so as to propel continued global efforts towards the developmental growth of rural communities in Sub-Saharan Africa. These areas were selected because they are goals which the Sustainable Development Goals (SDGs) aims to achieve by 2030; and thereby efforts towards achieving the goals of the SDGs (United Nations Statistics Division, 2016).

3.6.2 AGRICULTURE

A substantial proportion of rural dwellers in Sub-Saharan Africa are farmers or are into other forms of Agricultural engagement. Many rural communities in Sub-Saharan countries are also characterized by large land expanses with a high population density – which are good indicators of Agricultural progress. In addition, sub-Saharan Africa is beginning to experience a rise in their youth populations. By 2030, a substantial population growth of youths between the ages of 15-25years has been projected to occur in rural Sub-Saharan Africa communities – up to the tune of 90 million (United Nations, 2018). According to global reports, the attainment of the reduction of global poverty and hunger cannot be attained without lifting the number of people who live in these unfavorable states in rural Sub-Saharan African communities (Handley et al, 2009)

In the state of food and agriculture: leveraging food systems for inclusive rural transformation, a report presented in 2017 by the FAO, indicated that the achievement of the SDGs by 2030 is largely dependent on the development of Agriculture in rural Sub-Saharan Africa communities (Jayne et al., 2016; Fao, 2017). Thus, the development of rural Agriculture is a significant driver

for rural development. Hence, interventions have been carried out over the years to enhance the Agricultural development of rural societies.

The green revolution paradigm has guided in the development of many agricultural projects. One of such interventions was the Funtua, the first rural Agricultural intervention sponsored by the World Bank in Nigeria. It was executed in Katsina, Nigeria. The project was implemented in 1975 out of the increase in demand for output, but the soil productivity in Katsina as at the commencement of the project was at a decline. The project spanned till 1980. The projects covered up to 10% of Katsina and about 16% of the state's populace – which is up to 80,000 agricultural households. The Funtua rural Agricultural project also adopted the integrated rural development paradigm in that many rural development programs that had the potential of improving rural agriculture – like interlinking road constructions – were carried out concurrently during the project with the ultimate aim of improving rural dwellers' livelihood.

The Funtua project also set out to construct 350 houses – farm storehouses inclusive. According to reports from the World Bank, the Funtua project: "cover physical infrastructure, support services and farm inputs; including 1,500 km of low cost agricultural roads; 85 earth dams and 160 ponds to provide water supplies to humans and livestock; a project administrative center at Funtua, 5 development unit centers and 77 farm service centers; rehabilitate and equip two seed multiplication farms to produce improved high yielding seed; and expand and create new training facilities for project staff and farmers."

The Nigerian Project Monitoring and Evaluation Unit (PMEU) was saddled with the task of the evaluation of project funds. The actual management of the Funtua project was headed by Katsina state's Permanent Secretary of the Ministry of Agriculture and natural resources and other key government workers. The monitoring team also included international experts who provided support which the existing team did not have.

The acquisition of essentials for the project: such as vehicles, fertilizers, plant equipment to name a few were obtained through an open international bidding system (Appraisal of Funtua Agricultural Development Project Nigeria, 1974; D'Silva & Raza, 1980).

The Agricultural development project in Funtua was relatively successful because it was able to achieve some of her objectives such as the increment of rural farmers' utilization of

fertilization, reducing the number of kilometers rural farmers walk in comparison to regions where this was not conducted. The project was also able to construct high-grade laterite roads of about 500km – however, the project did not meet the original road construction target of 1500km as stated in her objectives.

The project also did not have a solid sustainability plan. Many of the infrastructure erected in the communities were not sustainable after the World Bank pulled out her financial support which enabled the local government in their implementation procedure. Thus, the Funtua agricultural project, though largely more successful in comparison to many other rural Agricultural development programs, could not sustain over time. The project was also unable to build 350 houses and ensure top quality houses of all the buildings constructed (Ekong, 1992). Another pitfall of the Funtua project is that it did not cater to the needs of small-scale farmers, as large-scale farmers obtained most of the fertilizers and subsidized seeds. The large-scale farmers in Funtua also received most of the extensive support provided by the project (Ekong, 1992).

3.6.3 HEALTHCARE

The state of a country's healthcare has been considered as a measure of development. Most urban communities are littered with secondary and tertiary healthcare, whilst rural communities have primary healthcare as the predominant healthcare system in place. Healthcare is certified as effective if the healthcare system reduces morbidity and mortality alike (Abidi, 2007).

Research has shown that rural communities in Sub-Saharan Africa do not have sophisticated general hospitals as they do in urban centers. In addition to these, rural communities in SSA have reported lower life expectancy and generally poorer health in comparison to those who dwell in urban communities (World Health Organization, 2008; Kahabuka, Kvåle, Moland, & Hinderaker, 2011). A 2017 report from the World Health Organization indicates that the rate of maternal mortality is still quite high. Sub-Saharan Africa along with Asia account for as high as 86% of global maternal mortality, with Sub-Saharan Africa accounting for about 57.3% of the global cases of maternal mortality. Many of these maternal mortality cases occur in rural communities in Sub-Saharan Africa – and understandably so because they occur in resource low communities – mostly rural communities (Rutherford, Mulholland, & Hill, 2010; United

Nations, 2015; Maternal mortality, 2019).

Strasser et al (2019) showed in their publication 'Rural Health Care Access and Policy in Developing Countries' that rural communities in SSA report the lowest number of health professionals, the absence of functional health facilities to uphold human health and the lowest proportion of accessibility to health care centers (Strasser, Kam, & Regalado, 2016b). Thus, interventions have been carried out in rural Sub-Saharan African communities over the years to assuage the adverse healthcare system in these regions. These interventions have not been as successful as their counterparts in Asia, where a higher percentage of rural morbidity and mortality have been recorded (Baatiema, Skovdal, Rifkin, & Campbell, 2013).

A World Health Organization supported case study of Nigeria poses the lack of trained human resources, geographical obscurity from service delivery, material accessibility and a high participant dropout rate during interventions carried out over an extended period of time as some of the challenges experienced in health interventions targeted at rural communities. In addition to this, only one-fourth (1/4) of Public health facilities have the minimum equipment package required in a primary health center (Uzochukwu, 2017).

Thus, this project decided to examine some of the rural primary health center interventions that have been conducted in the past, with the aim of gleaning from them. One of such is the building of the primary health center in Kuchibuyi, Abuja Nigeria. Kuchibuiyi community consists of about 800 residents. Abello Community Development Association instigated the building of the community's health center in 1982. However, the government took it over and completed the building. Kuchibuiyi, like many primary health centers in rural communities, was not constructed in accordance with the International Organization for Standardization (ISO), neither did the construction follow the generally approved design required of a hospital-built environment. According to the Joint Commission Resources in her second edition of 'Planning, Design, and Construction of Health Care Facilities – six steps were required for the successful construction of a primary health care center. These are: "planning, schematic design, design and development, construction and documentation, construction and commissioning" (Reis et al., 2009).

According to members of the Kuchibuiyi community, apart from giving the land for construction, the members of Kuchibuiyi community were not carried along in the design

process of the primary health care center, thus they did not feel it belonged to them. Additionally, construction of the health center was not designed to optimally serve sick people. As such, the entrance of the health center was very small which made it difficult to pass a stretcher through.

The healthcare also had polls in the building. These polls restricted the space within the healthcare facility. The corridors were also quite narrow and not well lit with natural light such as windows. In addition to these, the floor of the primary health center in Kuchibuiyi was not well levelled – leaving health workers and patients at risk of injury because of the poor building structure (Reis et al., 2009; Daily Trust, 2013).

Another worthy project to examine was executed in Zambia in conjunction with Luangwa and Lusaka rural communities. The Luangwa and Lusaka rural communities consist of about 30,000 dwellers and sit on about 3750km^2 of land. This project was carried out by the Ministry of Health, Zambia and Africare (an American NGO) to help construct health care apartments for primary health care workers in the community.

The project design began in 1980 and implementation began in September 1982. The project spanned until 1990. However, it was cut short because it fell short of reaching its primary aim of establishing functional health care centers in the communities. The project used a self-help approach implementation procedure, this includes health center houses which were to be built with the help of community members. Reports suggest that only two communities assisted to build the residential apartments even though materials were provided. The report indicated that: "With the exception of Lukwiga and Mwantigora, communities throughout the project area failed to support the building of staffs' houses for rural health centers. Work stretched over several years, little self-help labor was forthcoming, promised bricks were not delivered and building supplies were stranded in Lusaka due to lack of transport" (Kasonde & Martin, 1994). This project failure is attributed to the overestimation of the enthusiasm of the community members in having this intervention and contributing their quota to its success.

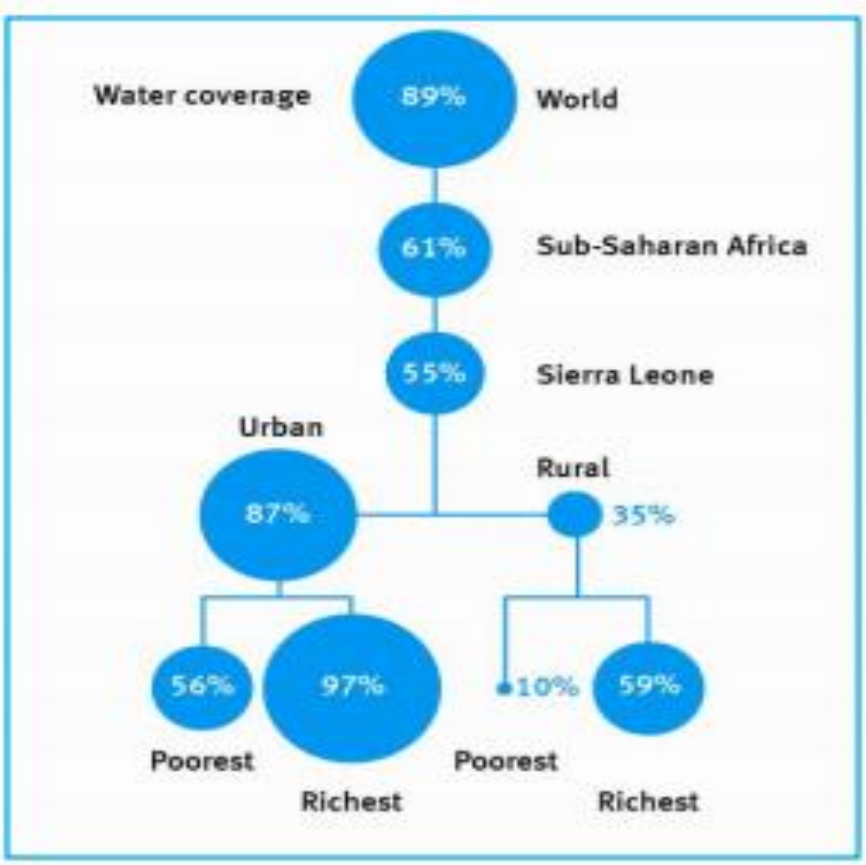
Oxfam also intervened in increasing the functionality of some primary health centers in Zambia. One of the primary challenges faced was the lack of transportation to take patients to referral hospitals and spare parts for bicycles, cars when available – since these vehicles need to be sustained.

3.6.4 WATER AND SANITATION

Rural communities in Sub-Saharan Africa encounter the direct water challenge globally**.** The 6th Sustainable Development Goal (SDG) aims to ensure everyone has access to clean water and sanitation. Some progress has been made towards attaining clean drinking water, sanitation and hygiene (WASH) for all. However, to measure progress, the Joint Monitoring Program (JMP), the agency assigned with the responsibility of monitoring global wash progress describes sanitation: as the ability to separate human waste from human contact (World Health Organization & United Nations Children Fund, 2013).

The SDG's intention is to leave no one behind – especially the rural poor who are at a higher risk to lack access to the aforementioned (Pirozzi, 2016). For instance, Sub-Saharan Africa reports the highest number of persons who lack access to safe water. Additionally, progress on sanitation has taken a backward dive. Reports from the United Nations (UN) shows that in over a span of 22years (1990-2012), sanitation in Sub-Saharan Africa has only improved by 5% (WHO/UNICEF JMP for Water Supply and Sanitation, 2014). Research suggests that many rural poor in Sub-Saharan Africa are unlikely to have access to safe water (UN-Water, 2014). Information quoted from the Sierra-Leone's demographic Health Survey and presented in the diagram in figure 4 below, gives a visual explanation of what WASH looks like for the rural poor. Hence, many rural WASH projects have been carried out in rural Sub-Saharan Africa to include the most vulnerable.

Figure 3. 3: The rural poor and water coverage



***Adopted from the JMP 2012 Sierra Leone Demographic Health Survey*.**

In 2008, a rural water sustainable development project was carried out in the village of Adu Achi, Oji River Local Government Area, Enugu State. The community embarked on a gravity-fed, water issuing structure obtained from a sandstone aquifer to be utilized for about 10000 dwellers. During the course of the project, it was observed that for the water project to be sustained over time in Adu Achi, Oji River Local Government Area, Enugu State, the community members have to be trained on installation and maintenance, and see themselves as owner and driver of the water project (US EPA, 2019).

A similar water project was carried out in Pyakasa, Abuja Nigeria. The installation of a borehole to rural Pyakasa by an international non-government organization (INGO) left the people happy – because of access to clean water. However, this joy was short-lived. The borehole at Pyakasa broke down, a few years after installation. It has been 3years since the borehole breakdown and the people in rural Pyakasa have been unable to fix the borehole. One of the reasons given is

that they do not have the finance required for repair. The inactiveness of the water project at Pyakasa could have been avoided if proper contracts had been made before the installation of the borehole – such as the preparation of the community for a possible breakdown of the borehole, utilization of better quality in the construction of the borehole and trainings on the means to generate money over time for repair (Usman, 2015).

Another notable project, a community-led total sanitation project was carried out in Koulikoro region in rural Mali in June 2011. This was implemented by the Koulikoro directorate on sanitation enacted by the Malian government in conjunction with UNICEF. The sanitation intervention consisted of 2166 households. This program sensitized participants on the negative impact of open defecation on the community and individual health. The program also encouraged community members to use latrines by building them and dissuading them from open defecation. This program then assigned field officers to monitor community members of Koulikoro's access to private latrines after a year and 3months: there was no significant change. This failure has been attributed to three things: first, a one off sensitization project on sanitation may not be effective in changing rural dwellers behavior on the utilization of latrines; second; the provision of affordable long lasting latrine may trigger rural dwellers to purchase latrines; third, the lack of close monitoring for impact (Pickering, Djebbari, Lopez, Coulibaly, & Alzua, 2015).

Another project on WASH is the Rural Sanitation and Hygiene Promotion in Nigeria (RUSHPIN). The RUSHPIN intervention was implemented in six local governments in Nigeria in Cross river and Benue state. RUSHPIN is co-sponsored by the Nigerian government. This intervention has received many commendations, such as in Obanliku like many other communities, where the intervention was executed and has been declared open defecation free (ODF). The RUSHPIN has also been commended for inculcating sustainable plans by training field officers who monitor the projects in implemented communities. The RUSHIN was able to inculcate the use of affordable sanitation materials such as clay, plastics, ropes and other materials easily accessible to the rural dwellers. However, the lasting impact of RUSHPIN over time is questionable – primarily because after the tenor of the incumbent government elapses, will there still be continuity? (Ogan & Okon, 2015; WSSCC, 2019).

Another project was carried out in Zambia in Luangwa and Lusaka communities. This project

was carried out by the ministry of health, Zambia and Africare (an American NGO). The project design began in 1980 and implementation began in September 1982. The project spanned till 1990. However, it was cut short because it fell short of reaching its primary aim.

Conversing with community leaders, traditional leaders and other key players in the communities, they asked for the pressing needs of the community. Access to clean water was listed as one of the major challenges encountered. Many women spent most of the days fetching water from sources that were unclean and distant. The project was able to construct 13 wells and restore 2, whilst 19 were uncompleted. A manually operating drill was provided by Africare and the community members were excited to use this. However, they were hindered by rocks and were not able to produce and repair more wells than they did. In addition to these, the project also constructed 133 pit latrines – utilized by households – and introduced Ventilated Improved Pit (VIP) latrines.

Schools across Luangwa and Lusaka communities were also urged to utilize the improved pit latrines which eliminated odor and disease-bearing flies. In the beginning, the schools' responses were slow because of the cost of constructing a VIP – cements and wiring mesh were required. However, after several sensitizations by community heads the schools began inculcating the usage of VIP toilets (Kasonde & Martin, 1994).

3.6.5 EDUCATION

Sub-Saharan Africa records the highest proportion of educational exclusion globally. More than $1/5^{th}$ of Sub-Saharan African children between the ages of 6-11years are not enrolled in school and about $1/3^{rd}$ of persons between the ages of 12-14years. Sub-Saharan youths are also inclusive in this statistic: about $2/3^{rd}$ of youths aged 15-17years are out of the education system. Across the aforementioned age groups, females' school attendance across board is lower. In addition to these, statistics indicate that rural dwellers report the highest proportion of educational exclusion (UNESCO UIS, 2019).

Over the years, efforts have been put in place by the global community to propel education globally. However, statistics indicates that efforts have not been proportionate to results (UNESCO UIS, 2019). Hence, before taking futuristic actions concerning rural education inclusion in Sub-Saharan Africa, it is essential to examine some of the projects that have been

carried out in the past – with the intention of drawing lessons on the reasons for a small-scale impact.

Reports suggests that many rural villages in Sub-Saharan Africa lack structural capacity essential to run a functional school, such as: a functional library, well-structured class rooms, functional toilets – in general, the use of materials that do not meet the International Organization for Standard's guidelines whilst carrying out projects in rural Sub-Saharan African communities (Osuchukwu & Edewor, 2016). Research indicates that successive education enhances students' learning and overall educational experience (Conn & Tipton, 2014). Thus, many Sub-Saharan countries like Kenya and Nigeria have abolished school fees as a pass into primary education – to increase the number of educational inclusion. However, research suggests that non-tuition fees such as cost of books, uniform, other non-tuition levies and weak building structures have also dissuaded many Sub-Saharan African children from enrolling into primary schools (Evans et al., 2017).

A Child Sponsorship Program (CSP) was implemented by an international non-governmental organization (a Dutch INGO) in Kenya. The educational intervention adopted the integrated rural development model in that it provided selected schools with nurses and a standard clinic building – which was accessible to community members (adults as well). It also financed the constructions of buildings in schools using standard construction materials, provided school uniforms to orphans and some students with parents. The intervention also encouraged Agriculture in the schools – by establishing an Agricultural club in the school. 12 primary schools situated in Busia district; the western region of Kenya were selected to participate in the CSP intervention. Six months after intervention, the study observed a 37% reduction in school absenteeism. The uniform had a higher impact on girls and children who prior did not have a uniform. However, the intervention did not have any significant impact on grades. The long-term effect of the CSP intervention was accessed in 2010, 8years after the project was carried out. The reports indicated that the CSP project did not have a lasting impact on beneficiaries' long-term schooling pursuit (Evans et al., 2017).

Another notable project was implemented over the years in Burkina Faso. Burkina Faso ranks as one of the countries with lowest primary school educational enrolment globally. Additionally, Burkina Faso reports a wide gender gap in inequality: in 2003, there was a 13%

difference in primary school enrolment proportion between males and females (Back N'gra-Zan, Coulibaly, & Hickson, 2003). Thus, Burkina Faso implemented the Bright Program in some of her villages, having as one of her primary objectives the increase in female enrolments and the general enrolment of children who reside in rural communities.

This project was financed by the Millennium Challenge Corporation (MCC), implemented by NGOs and monitored by the USAID. The Bright program was enacted in 132 rural communities throughout the 10 regions of Burkina Faso – especially in villages that reported low female primary school enrolment. 17,970 children between the ages of 6 to 12 years participated in the intervention. The project engaged in the erection of school building, developed a structure to garner community support in education, especially for the girl child. The program also provided motivations for village children to attend school, incentives not common in rural primary schools –such as teacher's accommodation, three new buildings in the participating schools and a different latrine for boys and girls. Girls were allowed to take home portions – however, this was conditioned on 90% attendance. Textbooks were also provided and parents were extensively sensitized on the benefits of education. (Kazianga, Levy, Linden, & Sloan, 2013).

The Bright program was implemented in 2005 and the survey was carried out in 2008. Report from the study indicated a 20% increase in female enrolment. Additionally, the participants reported increased scores in Mathematics and French. Thus, the Bright Program was successful (Levy, Sloan, Linden, & Kazianga, 2009). However, the Bright Program lacked a solid sustainability plan. One can deduce that some of the successes reported by the project can be traced to the 'new thing effect' which may not necessarily have a lasting impact. This postulation is supported by the 10 years impact study carried out on the Bright Program. Research suggested that the impact of the bright program has waned considerably in the villages in which they were implemented – indicating that it was not adequately sustained over time (Ingwersen et al., 2019).

Nigeria also presents another example. In 2009, the Nigerian Federal Ministry of education set out to assess the quality of education administered to Unity schools. This was done to assess the effectiveness of the improved syllabi and new teaching technique deployed to teachers. Thus, UNICEF and the Nigerian federal government funded projects to help carry out this

assessment. One of such assessments was in Edo state, Nigeria. The study set out to assess the assimilation of primary four students after the end of the session – that is, after first, second and third term. 530 pupils who were randomly selected were enrolled in the study, 65% of whom were rural dwellers.

The above result indicated low performance. The mean percentage score in numeracy was 29.70% for children who schooled in rural communities, in comparison to 41.15% for children enrolled in urban areas. The literacy score for rural and urban dwellers were similar - 16.01 for pupils in urban schools and 16.64 for pupils in rural schools. There was no significant difference between girls and boys performance. Hence, the findings indicated that the government education in Edo state was not achieving the primary aim it set out to do which was educate its primary students – and particularly in the rural areas (Osagie & Ehiametalor, 2010). This failure may be attributed to the lack of adequate structure required to enhance education such as well constructed classrooms, toilets and libraries – to name a few.

3.6.6 ROAD

Road network is integral to rural development. A substantial percentage of rural inhabitants in Sub-Saharan Africa are farmers. Thus, transportation in rural communities is vital for rural economic development, in order to enhance large-scale agricultural production and general social influence. The presence of a good rural road network also opens up the community positively (Hilson, 2016). The textile industry depends on the cotton obtained from rural areas to produce, and both international and local fruit juice industries depend on the apple, mango, pineapple – to name a few – obtained from rural communities to make their finished products. Even some sub-regions of Sub-Saharan Africa get their raw crude oil mostly from rural communities: such as, crude oil obtained from the riverine areas of Nigeria.

Thus, for Sub-Saharan Africa to make quantifiable progress towards development, development has to take place in rural communities – and one of such development is transportation (Filani, 1993). Many road projects expand already existing rural road networks or build new ones (Pronyk et al., 2012). One of such rural transportation interventions came out of the creation of the Directorate of Foods, Roads and Rural Infrastructure (DFRRI) by the Nigerian government. Under DFRRI is the Rural Feeders Road Program set up to construct roads to enable the moving out of farm produce into markets. Enugu, a state in Nigeria presents

a case study that gives a lucid example of the impact of the DFRRI. The project began implementation in Enugu in 1986 and spanned till 1993. At the start of the project in Enugu state, the DFRRI stated that it set out to construct 4265.60 km, however, 2488.20 km was constructed, which is 58.5% of the target distance.

Studies show that as at 1993, although a road that spans 2488.20km was constructed, many of those roads were not accessible – meaning that the road completed were not well implemented and the ones completed were constructed with inferior construction materials. This incomplete road construction was as a result of a shortage in funds, traceable to the Structural Adjustment Program (SAP) which mandated that countries reduce government spending. Additionally, the quality of the road constructed – where it was completed – was poor. The DFRRI only constructed earth roads (Udeh, 1989; Filani, 1993), which may not have been the best road choice for rural communities.

Another rural transportation project was carried out in some rural regions of Ohangwena and Omusati in Namibia called Transport Master Plan. The master plan was set up by the Namibian government to address some of the challenges with the road network in rural communities. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) supported the project by providing consultation concerning the development of the master plan. The project included rural dwellers in the project's planning process. Specifically, rural dwellers who the road was to benefit were asked about their needs concerning transport in drawing up a plan. Different categories of rural dwellers were consulted – they varied in age, sex, occupation and physical ability. Different stakeholders were also consulted who manage the regulation of rural transportation. The successes and failures of other countries were also accessed in developing the transport master plan for the selected rural communities in Namibia. The first phase of the project was implemented in 2014, whilst the final stage was in 2017 (Riehle, Starkey, & Ambunda, 2017). A sustainability plan was inculcated into the design and appropriate roads guided by the types of usage directed at the type of transportation intervention to the rural communities.

The rural access road program in Kenya is another significant project in Sub-Saharan Africa to be examined. This road project in Kenya was enacted to enhance market access for rural dwellers (Chamberlin & Jayne, 2013). The Kenyan government implemented the construction

of 15,000 km of rural roads from 1975 to1982. The Bank Group assisted and co-funded this project. The project received funds from other international donors and other local agencies as well, however, the funds from the Bank group was a loan. Kenya's Ministry of Works executed the project. This road was carried out in Kenya to encourage farmers' agricultural productivity by providing access and also give room for all-round development in rural communities in Kenya.

To save cost, the project utilized the local labor force to aid employment in the regions. Additionally, the Kenyan government organized a local district committee who selected the roads to be constructed. Each district selected within the range of 150-200 km roads to be constructed, as guided by the rural road sector of the ministry. However, the ministry of transport and communication in Kenya calculated the economic benefit of those roads before approval was given for selection – thus roads to be constructed were determined by measures of population size and impact area of the district. The selection at district level was done to allow rural dwellers to participate in the rural road process and to have some sense of project ownership. 22 rural districts were selected for the program (Riverson, Gaviria, & Thriscutt, 1991).

The rural access road program was relatively successful. However, the program fell short in some key areas. Some of the setbacks of the rural access road program in Kenya was that the quality of road constructed was higher than the existing roads, which led to a shift from the rural roads to the echeloned road networks. Thus, one wonders if this was really a setback since higher quality roads are more sustainable over time (Riverson et al., 1991).

Another notable rural road project is the District Roads Improvement and Maintenance (DRIMP). This project is focused on the upgrade and sustenance of primary and secondary roads in Malawi, with the intention of making possible equal economic and social opportunities and thereby development in rural communities in Malawi. The DRIMP project was executed in 1972. The project allowed for rural settlers to have access to markets and other social amenities that propel rural development. One of the objectives of the project is the reduction of the cost of transportation. A special fund credit was used to fund the DRIMP project in Malawi. Good rural access is crucial for agricultural production, socio-economic well-being and economic growth.

3.6.7 ELECTRICITY

The ingress of electricity in Sub-Saharan Africa has been seen as a driver of economic development. Hence, the shortage in distribution thereof of electricity has been associated with the underutilization of clinics, education and slow business growth in this subcontinent (Eberhard, Gratwick, Morella, & Antmann, 2017). The 1950s and 1960s ushered in electricity for many Sub-Saharan African countries. However, rural communities in Sub-Saharan Africa experienced a much slower distribution. Over the years, Sub-Saharan African countries like Cote d'Ivoire and Ghana have reported a steady domestication of electricity, even in rural communities, in contrast to Nigeria whom showed higher prospects of widespread electricity because of her early exposure to wealth – which resulted in the building of gigantic hydroelectric projects in comparison to other Sub-Saharan African countries – but has one of the weakest widespread domestication of electricity. Nevertheless, the variation in the extension of electricity in different Sub-Saharan African countries – rural areas – did not happen by chance (Marwah, 2017).

Brian Min in "Power and the Vote: Elections and Electricity in the developing world" – called electricity: "the lifeblood of the modern economy. It enables production, keeps factors humming, illuminates streets and lights up home" (Kitschelt, 2016). Thus, countries that understood the power of electricity like Cote d'Ivoire and Ghana pressed for the steady domestication of electricity by putting programs in place to enforce this, even rural areas where the returns yielded much slower in comparison to urban regions (Kitschelt, 2016). In 1972, the World Bank began to prioritize funds for electricity: under the village electrification scheme and Sub-Saharan Africa received a substantial fund towards this (Marwah, 2017). The village electrification project has been expressed differently in many Sub-Saharan African Countries. After this period, some Sub-Saharan African countries enacted policies that allowed private funders to invest in electricity and charge for it.

Nigeria set up her rural electrification Agency (REA) in 2005. The purpose of REA was to extend electricity to rural communities in Nigeria. REA has successfully sensitized rural communities in Nigeria on the importance of electricity since inception. One of her key strategies for lightening up rural communities is the gathering together of communities to create an Electricity Users Cooperative Society (EUCS).

The EUCS enables rural communities' dwellers to run and maintain electricity in conjunction with private organizations. The EUCS was implemented in 2009 and 497 communities across the 36 states in Nigeria have registered with the EUCS (Rural Electrification Agency, 2019). However, the continued success of the EUCS is questionable – because many of the communities in which the EUCS is presently being implemented do not have a stable power supply. This is understandable because a recent systematic review conducted by Kariuki et al reports that small scale services maintained by private owners are at an increased risk of insufficiency of funds and thus, result in project unsustainability because of maintenance cost (Kariuki & Schwartz, 2005).

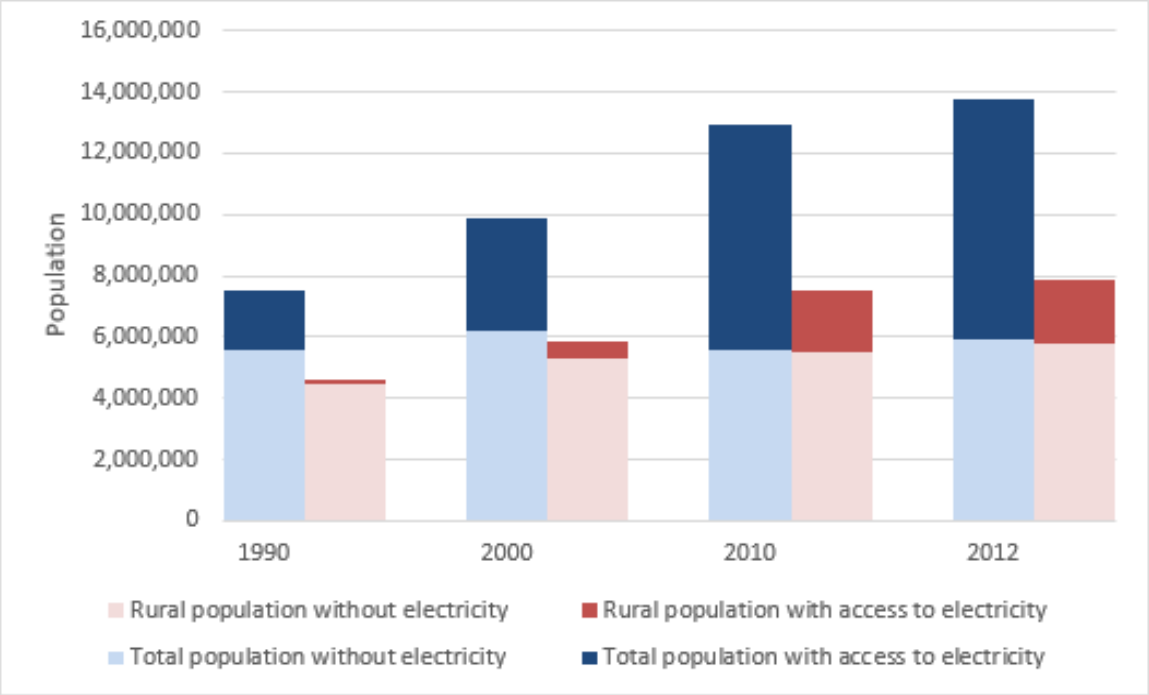
Over the years, Ghana has reported progress in extending electricity to rural areas – from about 1% to 63% electricity coverage within 22years (Adu, Dramani, & Oteng-Abayie, n.d.). The Ghanaian government established the Rural Electrification Project (REP) as far back as in 1970. The REP was not successful at extending power to the rural communities in Ghana – by the late 1980s, only 5% of rural communities had access to electricity. Thus, the National Energy Policy (NEP) took over REP. The NEP established the Self-Help Electrification Project (SHEP) to increase electricity access to rural communities. SHEP used the self-help technique in that it required rural communities to meet certain criteria – such as provide their own poles for a low voltage distribution. SHEP was able to increase rural electricity demand to 54% by 2005. Thus, by the year 2005, 3026 communities had access to electricity in rural communities in Ghana (Akpandjar & Kitchens, 2017). SHEP was successful in Ghana because they were able to involve the people in the process of the electrification of their communities.

Another example is the Mpeketoni Electricity Project (MEP), a communal-based diesel micro-grid project in rural Kenya. This project spanned from 1994 till 2007. The MEP utilized the integrated rural development paradigm: in that the project was implemented alongside other structural-developmental projects in the community. The MEP was able to get back about 94% of the cost recovery used for this project – which indicates electricity demand and project success (Kirubi, Jacobson, Kammen, & Mills, 2009).

Senegal has reported a steady increase in the widespread use of electricity to her rural inhabitants. Many have attributed this increase to the establishment of the Senegalese Agent for Rural Electrification as an independent agency. However, research indicates that for the amount

of money invested in the Senegalese Rural Electrification projects, a higher electricity coverage in rural Senegalese should have been reported. One of the agency's efforts at widespread electrification in rural Senegal was the establishment of the Senegalese company for rural electrification (ASER) – as an independent organization – which reported that about 90000 new rural dwellers use electricity. ASER began her implementation activities in 1999, using both downward and upward approaches to rural electrification: the downward approach drives implementation from the highest level of government, whilst the upward approach drives electrification project from the community level up. At the upward level, ASER gave room for community level concession which allows for private bodies, communities or consumer groups to meet the demand for electricity in rural locales (Gökgür & Jones, 2006) (Diouf, Pode, & Osei, 2013). The histogram in the diagram below shows the distribution of rural electrification in Senegal after the implementation of ASER.

Figure 3. 4: A Diagram on the distribution of rural electrification in Senegal after the implementation of Aser



Sourced from the World Bank's Open Data

In 2007/2008, the Kenyan Power and Lighting Company came up with a project to extend electricity to rural dwellers called, 'Electricity Together'. Howbeit, this project did give the desired result it was set up to do (Abdullah & Markandya, 2012).

From country examples, one of the constants of many rural evaluation projects is the absence of sustainable plans. This means that all the rural electrification projects accessed did not have a continuation plan after the completion of the given rural community projects. Thus, their impacts were not far-reaching.

3.7 RURAL PROJECT FAILURES: CAUSES AND MITIGATIONS

3.7.2 AGRICULTURAL DEVELOPMENT

From the case-study in FUNTUA, one can deduce that this development project was not adequately monitored. This can be traced to the uneven distribution of resources to small-scale and large-scale farmers. Thus, corruption at all levels should be mitigated against to ensure that services are provided to all beneficiaries the rural agricultural program sets out to reach.

Additionally, a sustainable plan should be set in place to avoid wastage after the primary completion of the project. Thus, maintenance of building, roads and equipment should also be drawn out at the beginning of the project and tested as much as possible to ascertain visibility (Ekong, 1992). Additionally, indigenous rural agricultural development projects should encourage the raising of funds internally instead of heavy reliance on funds usage. The FUNTUA program showed that the project funder holds a high say on how their money is spent, which may not necessarily be the best for rural agricultural projects. An illustration, FUNTUA employed and delegated the procurement of resources to international organizations – which was not necessarily the best (Bank, 1974) (D'Silva & Raza, 1980).

3.7.3 HEALTHCARE

To mitigate against the low number of health professionals in the rural community, prospective intervention should focus on training of indigenous community members as health professionals – so as to leverage on the expertise of the community member in meeting this need. This study also recommends that before health interventions are carried out, the community where the intervention is to be executed is quizzed, so as to ensure that the actual health challenge is what is being addressed and not an assumed health challenge (Gessert et al.,

2015) (Cristobal & Worley, 2012).

Additionally, the quality of health services in rural areas should be improved. Studies have shown that rural communities' members in Sub-Saharan Africa are cognizance of quality treatment and structure (Ajaero & Onokala, 2013). Also important is the end-receivers response. The beneficiaries of any health-related project should be enthusiastic about the health care project to be given. Thus, the rural community members should be sensitized before health projects are administered – if the community members then show enthusiasm about the project, then it can be executed. Otherwise, the project may have a good start, but may end up not being sustainable over time. Thus, this is reiterating the fact that rural communities receiving the intervention must want the intervention (Kasonde & Martin, 1994).

3.7.4 WATER AND SANITATION

One of the major hindrances to safe water and sanitation to rural dwellers is the lack of or inconsistent electricity supply. This hindrance is understandable because most safe water equipment requires electricity to function. Additionally, to enhance sustainability, community members should be trained on the installation and maintenance of equipment. Failure to do this will yield a short-term solution to the community rural water development project and a waste of project funds. Pyakasa, a rural community in Abuja Nigeria, is a good example of what happens when the community is not carried along in the design of the water project: short-lived success (Foster, 2013).

As it pertains to sanitation, findings from a randomized control trial carried out in Mali to improve private latrine usage suggests that a rural defecation project stands a high chance of failure if all the program does is sensitization. Community members must also be presented with actions to be taken for there to be a significant change in private latrine usage (Pickering et al., 2015). A recent randomized control trial carried out in Idiofa, a rural community in the Republic of Congo also provides evidence on some key things to look out for in conducting WASH intervention in rural Sub-Saharan Africa. The study suggested that for a WASH intervention to be successful, it has to be community-led. Additionally, the study stresses the importance of conducting small-sized WASH intervention to enable monitoring (Cha et al., 2017). Many WASH interventions have been successful; however, the lasting impact of such interventions has been questioned.

3.7.5 EDUCATION

The bright program indicates that while educational programs may be great at the start, they do not have inculcated in the design, a lasting sustainability plan. The Bright program has been lauded as one of the most successful educational interventions in Sub-Saharan Africa. However, even this successful program is rife with holes – a lasting sustainable plan to ensure most of the primary objectives of the projects out-leave incumbent governments (Ingwersen et al., 2019).
At this junction, it is important to state that educational interventions are heterogeneous – meaning that different types of intervention elicit different types of outcome. Perhaps, non-tuition and the presence of school clinics may improve primary school attendance, but not necessarily student performance. Additionally, successful educational projects are costly and need a lot of dedication to elicit the desired result. Thus, in drawing up the project this should be acknowledged (Conn & Tipton, 2014). The study by Dr Osagie et al, also suggests that teacher training should be carried out systematically. For a fact, in Nigeria, some teacher training projects are poorly structured whilst some are crash trainings. However, if this can be adjusted, more teacher training projects will deliver on its intended purpose (Osagie & Ehiametalor, 2010).

3.7.6 ROADS

One of the challenges encountered in the establishment of rural roads is the quality and shortage of funds in the process of construction. For instance, because rural communities mostly consist of raw materials needed in large quantities, roads that will accommodate large means of transportations like Lorries and other big vehicles should be constructed – especially in a country like Nigeria with weak rail transportation systems. Nigeria suggested the construction of roads using the minimum road standards which may not necessarily be the best option for all rural communities in terms of its long term effect (Riverson et al., 1991; Porter, 2002). Thus, this should be mitigated against when developing rural road interventions in the future. Additionally, a sustainability plan should also be developed when designing the intervention plan for rural communities – since roads require maintenance as well (Bryceson, Bradbury, & Bradbury, 2008; Ahmed & Ahmed Kabiru, 2016)

Nigeria suggested that in rural road planning, the population and density are to be considered, in practice, Nigeria has not applied this knowledge to many rural road projects being

constructed (Riverson et al., 1991). Also of importance is the funds allocated for constructions, especially of the funds assigned for the maintenance of highways connecting rural communities to cities. The presiding government, mostly responsible for funds allocation should assign sufficient resources to enhance the sustainability of roads (Chamberlin & Jayne, 2013).

Another thing that can be mitigated against is the inculcation in the receipt of bribes by bidding agencies. Research has shown that oftentimes, the contractors have not been able to construct quality roads because of the bribes – since funds are apportioned to the agency who assist in obtaining the road contracts. This also results in the utilization of low-quality materials in the construction of roads in rural Sub-Saharan African regions. Additionally, an independent monitoring agency should be set up to ensure that value is obtained for money spent (International, Transport, & Requirements, 2008). Thus, this project recommends the development of a compact framework that can be implemented to assuage these shortcomings.

3.7.7 ELECTRICITY

One of the salient reasons given for rural projects' lack of success in Sub-Saharan Africa as it pertains to electricity is the failure to carry along the community members in drawing up the rural electrification implementation. This results in the drawing up of electricity cost without checking to see if these rural dwellers can afford such cost in the long run. Thus, the cost of electricity has hindered rural dwellers, thus, beneficiaries from rural Sub-Saharan African communities were not willing to pay (WTP).

Research suggests that another hindrance to rural electricity projects is the interference of Politics. Once technical capacity and funding is influenced by political affiliation, failed projects have shown that this has a harbinger of such rural electricity projects. Literature also shows that another indicator for the implementation of a successful rural electrification project in sub-Saharan Africa is for the community to see it as a necessity. The absence of the community seeing electricity as a necessity will result in them not paying their electricity bills – which is reasonable.

Another failure in the design of rural electricity projects is not drawing up a plan for cost recovery. The Senegalese case study under SENELEC (Senegalese Company for Rural Electrification) shows that bureaucracy may also hinder an electrification project's success.

Though SENELEC was in existence in Senegal in 2004, two grids which she managed could not generate electricity to rural communities because she did not sign their power purchasing agreement. Hence, these grids could not supply power and the rural communities to be supplied with grid had to forego this till this issue was resolved. This was recently resolved in the year 2015.

Another challenge that results in the lack of sustainability of projects in rural Nigeria is political instability. Many rural electrification projects in Nigeria are carried out in conjunction with federal, state and local governments. The exit of a sitting government often affects continuity (Julius, Olufemi, & Chuks, 2014). Thus, this has to be looked into when designing rural development programs. Additional research suggests that a viable monitoring and evaluation system for rural electrification projects have to be considered when designing projects.

3.8 THE EFFECT OF APPROPRIATE PLANNING AND IMPLEMENTATION: EVIDENCE FROM NIGERIA

Nigeria, like many other Sub-Saharan African countries have witnessed little development in its rural communities in decades. Studies attribute this failure to the relegation of its 'rural' tracts: such as agriculture and high migration shift from rural to urban areas within the country. The Nigerian government delegated rural development progressions to the Local Government Authorities in the 1976 local Government reform. Nonetheless, efforts towards rural development have been attained through varying means by the three tiers of the Nigerian Government. Budget methodology is utilized for project design and execution. This is used by different departments and agencies. This section will utilize the Nigeria Millennium Development Goals Office as an ensample. The Sustainable Development Goals Office in Nigeria, which was formally the Nigerian Millennium Development Goals (MDGs) was assigned the role of speeding up the attainment of the MDGs in Nigeria. The then MDGs office utilized a tripartite partnership named the Conditional Grants Scheme. Local governments were invited to submit proposals. These proposals were granted one of these conditions, that stakeholders were included in the application. In addition to these, projects were to be implemented by indigenous contractors in most rural communities in Nigeria. The project also included a robust Monitoring, Supervision and Data Collection (MSD) model. This enabled speedy completion of projects within the allotted times. The MSD also aided appropriate

utilization of resources. Hence, the application of the MSD assisted in the amelioration of project implementation failure. The success reported by the MDGs Nigerian office, attests to the feasibility of running a successful rural project and carrying out productive implementation.

3.9 STAKEHOLDERS IN SUB-SAHARAN AFRICAN RURAL DEVELOPMENT PROJECTS

Amongst other things, it will be useful to know the stakeholders in rural development projects and how their roles may have influenced the attainment of masterly sustainable rural development projects in Sub-Saharan Africa. The World Bank (1996) defined stakeholder participation as: "a process through which stakeholders' influence and share control over development initiatives and the decisions and resources which affect them" (World Bank, 1996). Stakeholders may be explained as individuals, groups or organizations who have something to gain or lose in the action or inaction of a project (Phillips, Freeman, & Wicks, 2003). Thus, in the context of this study, stakeholders may be viewed as key players in the success or failure of rural development projects. They may also be viewed as the hands placed on deck to facilitate the success of rural development projects – in this case Sub-Saharan Africa.

It is important to note that stakeholders differ in their importance to rural developmental project successes. The implementation of rural development projects is a multiplex because it involves different significant stakeholders (Usadolo & Caldwel, 2016). Hence, to enhance rural development projects success, it is expedient to consider and involve different stakeholders in the varying levels of decision making, implementation and execution as regard the design of rural developmental projects. The United Nations also considers the participation of significant stakeholders in rural development projects as an egalitarian right (Rhode, 1988). The involvement of stakeholders in the implementation of rural development projects – even in Sub-Saharan Africa – has been viewed to foster successful project implementation and enhance sustainability. Studies also suggest that stakeholders' involvement in the different layers of the design, execution and sustainability of rural development project also fosters project ownership by those involved and thereby enhances rural project success (Richards, Blackstock, Carter, 2004; Reed, 2008). According to Robinson (2002), stakeholder's involvement can only be termed as fully participatory when stakeholders have steady control of decisions made as pertaining to project aims, execution and sustainability plan (Robinson, 2002).

Research suggests that rural development projects desire two levels of stakeholder participation. The first is the normative participation. Rural project coordinators at this level involve varying stakeholders to fulfil ethical requirements (Donaldson & Preston, 1995). The second is the instrumental participation, which has at its center stakeholders' ownership of rural development projects. The inculcation of the instrumental rural development project scope requires the full participation of stakeholders in project design, implementation and evaluation (Jones, 1995; Donaldson & Preston, 1995; Pérez Perdomo et al., 2016).

From the findings reported by literature, the instrumental participation has worked more in aiding rural project success in Sub-Saharan Africa. Hence, this section assesses the varying key stakeholders in rural developmental projects in Sub-Saharan Africa.

3.9.2 GOVERNMENT

Governments across countries have as one of their responsibilities, the improvement in the quality of life and livelihood of all within their jurisdiction. A perpetual upgrade in the living conditions of all is also one of the reasons for the continuance of government (Ndaguba & Hanyane, 2019). Thus, different Sub-Saharan governments are also stakeholders in rural development projects. Most governments of Sub-Saharan countries operate a shared sovereignty: in which a government closer to the people operates for the people on delegated authority from the central authority (Erk, 2014). Studies have shown that the level of funding available for rural development intervention often determines the strength of the government involvement. An instance is, the FUNTUA project in Nigeria – a World Bank sponsored project that involved the Nigerian government as an active stakeholder. Reasonably so, the World Bank loaned Nigeria a large amount of the funds which was used for the FUNTUA rural project implementation – they had to play a close role (Bank, 1974).

The Government also played a key role in the creation of pro-rural development policies meant to facilitate the growth of rural communities. Additionally, the implementation of existing rural policies in many Sub-Saharan African states by government parastatals also makes the government a key player. It is also important to mention that research has observed that the absence or weak representation of persons from rural communities in levels of government over time has also contributed to gaps in the implementation of rural development projects in

communities where they are most needed. One example is: how will international NGOs intervene in rural communities in need of educational infrastructure, except there is a voice to speak on the need? (Chukwuemeka, 2013). Apart from the aforementioned, the government also plays a key role in ensuring the implementation and monitoring of rural development projects since they have an existing structure able to reach all rural communities (Hyden, 2007). Durany and Maddick (1964) gives a glimpse into the power of the government – local government – in facilitating project success in this statement: "Local authorities provide the opportunity for local people to participate in local decisions and local schemes within the general national policies, and to act above all, as local centers of initiative conducive to development" (Durany & Maddick, 1964). Hence, it is not amiss to postulate that the federal government working through the state and local government plays a vital role in endowing rural community members with a sense of project ownership by giving visibility to their needs. Thus, the government is a key stakeholder in rural developmental projects in Sub-Saharan Africa.

3.9.3 BENEFICIARIES

Over and over again, research indicates that rural community members where rural development projects are executed are vital stakeholders and thereby beneficiaries. Woelk (1992) in his study: "Cultural and structural influences in the creation of and participation in community health programs" indicated that the lack of a unified consensus on what makes up 'community' and 'participation' has resulted in the abortion of rural community participation and implementation over time (Woelk, 1992). When this happens, rural projects are subjected to a greater increase of failure. Manderson et al (1991) elaborates on this with this statement: "on two axioms: that the only way to overcome limited and unequally distributed resources to ensure Health for all is through the involvement of local communities in the prevention of disease and the treatment of the sick, and that without community involvement and responsibility, programs will fail" (Manderson et al., 1991). Research has also shown that geographical juxtaposition does not necessarily mean community cohesion. Hence, that people live in the same community does not necessarily mean they want the same thing (Owino Kaseje & Sempebwa, 1989).

The presence of such incongruence within rural communities and amongst beneficiaries should be accounted for in the course of project design, implementation and evaluation. The lack of interest in community members is an indicator of project failure, success and long term sustainability (Kasonde & Martin, 1994). The Bright Project in Burkina Faso exemplifies the aforementioned. The Bright Project was able to sustain the increase in the number of girl children enrolled into primary schools because the project design actively involved the community members at the project design stage (Ingwersen et al., 2019). The Bright Project ensured community members were adequately educated on the importance of exposing their girl child to education. The project in Luangwa and Lusaka communities, Zambia also suggests the importance of community members in the success of rural development projects. By way of illustration, the multiplication of ventilated improved pit latrine (VIP) was not embraced by the schools in Luangwa and Lusaka, Zambia at the beginning of the project – even though healthier. The school administrators had to be sensitized over time before the replication of VIP toilets was embraced and constructed in other schools using available building materials which were higher than the regular pit latrines in use (Kasonde & Martin, 1994).

Another reason for beneficiary involvement in rural development projects is that the rural community may have devised means to solve the problem the interventions targets to solve. The intervention team may only know this if they engage with the community members where the intervention is to be executed. This knowledge may go a long way in reducing project costs in facilitating rural developmental intervention (Matthews, 2017). Additionally, there may be taboos or cultural hindrances which the project design may not have accounted for if dialogue had ensued with the community members. Hence, such omission will increase the likelihood of project failure in such a community. Thus, it is only logical to engage community members with the intention of understanding the community's dynamics.

3.9.4 RURAL COMMUNITY LEADER

Research suggests that rural community interventions must ensure that the community leaders selected to participate in the project have sufficient influence. The importance of the selection of a community leader who garners legitimacy in the eyes of the community is important for rural project success. The rural development construction erected in such communities ends with a devalued perception in the eyes of the community because of the leaders involved (Walt,

Perera, & Heggenhougen, 1989; Ramaiah et al., 2001). Rural community leaders are the middle men between the community members and the project planner. Community leaders are also community members, but they are more involved in the intricacies of rural development projects as a representative of their communities.

Depending on the project design, community leaders either help implement the desired project plan – either up down: project with an up-down design permit little adjustment. They often impose an idea on the rural community to intervene in. Rural community leaders also act as middle men in designs with a bottom-up approach – which are projects designed with allowances for the community members in which the project is to be executed to voice their needs for such projects success. Rural community leaders also play a key role in the feasibility of the bottom-down approach (Atkinson, Vallely, Fitzgerald, Whittaker, & Tanner, 2011).

Literature suggests the importance of clarifying the primary purpose for involving community leaders in the design, execution and sustenance of rural development projects. Such purpose could be a means to an end – as seen in the upward and bottom approach, or as an end in itself (Pérez et al., 2007; Walley et al., 2008). The systematic review by Atkinson et al (2011) suggests the importance of having infrastructures to propel the effect of rural community participation as pertain to rural development projects (Atkinson et al., 2011). One of the roles of community leaders in rural development projects is the implementation of projects at community level. However, literature suggests that usually community leaders do not perform up to par, because they often lack the managerial training required to carry out the delegated assignment. Hence, to increase community leaders' performance level at the implementation stage, some level of training may need to be administered.

3.9.5 COMMUNITY BASED ORGANIZATIONS (CBO)

From time, African communities have always functioned communally. Hence, the concept of CBOs is not new to Sub-Saharan Africa (Mutongu, 2009). Drawing from research, CBOs play a vital role in rural development projects. Opare (2007) in "Strengthening community-based organizations for the challenges of rural development" describes CBOs as small groups or informal organizations (Opare, 2007). Literature suggests that CBOs are a medium through which rural communities meet their pressing needs. CBOs operate mostly by the coming together of rural communities as a unified group in an attempt to proffer sustainable means to

persistent issues in such communities (Amungwa, 2011; Tantoh & Simatele, 2017). The CBOs approach to rural development has been commended for its ability to foster project ownership among community members. The ability of CBOs to foster project ownership among community members has been traced to its structure. CBOs closeness to the community members is able to foster participation in the administrative process essential for project implementation (Tantoh & Simatele, 2017). A study by Ugboh et al (2008), shows that CBOs in rural communities perform varying functions such as levy collection from community members, help to determine feasible projects that meets community member's needs, manage on-going projects, maintain unity amongst community members, perform the role of policy implementation and evaluation body, liaise with bodies outside the community to facilitate development, assist in the sensitization of community members and act as the voice of the people (Ugboh & Tibi, 2008).

Membership into CBOs is often guided by common features. An example being, women groups – this type of CBOs consist of women in rural communities who come together to address a common observed need (Mutongu, 2009). The community-based management approach to rural development has been utilized for varying rural developmental projects in SSA. One of such is the water projects especially. Hence, rural communities become unified in an attempt to proffer sustainable means to persistent issues. However, the success of CBOs in successfully implementing water projects in their indigenous rural communities has not been consistent across board. Hence, it is important that rural development projects consult with functioning CBOs in communities where intervention (Wallace, n.d.) is to be proffered before executing projects. Thus, CBOs are key stakeholders in rural development projects in Sub-Saharan Africa communities.

3.9.6 LOCAL NON-GOVERNMENTAL ORGANIZATIONS (LNGOS)

NGO as a concept came to the scene around the 1940s because the United Nation had to differentiate between its authorization between multi-nations specialized bodies and international private corporations (Kütting, 2004). LNGOs are often unaffiliated with the government. They are humanitarian or religious organizations primarily set out to propagate rural development in designated communities in which they operate. Most LNGOs source funds locally or affiliate with international organizations to improve the development of rural

communities (Saltelli & Giampietro, 2017). Research suggests that local non-governmental, not for profit organizations contribute to rural development projects success (Romero-Brito, Buckley, & Byrne, 2016). They are quite different from CBOs in functionality, in that they are not always indigenous and do not necessarily stem from the rural communities. Yusuf I.D et al (2017) inferred in Appraisal of the Contribution of Non-governmental Organizations (NGOs) to Poverty Alleviation and Community Development in Gombe state, Nigeria, that the Nigerian government may not confidently state that it had single-handedly brought about the measure of rural development currently recorded in the nation, without the support of LNGOs (Bashir & Abubakar Husain, 2017). To illustrate, Youth Empowerment Foundation (YEF), an LNGO in Nigeria, has a project tagged "built For Life". Project "Built for Life" aims to construct infrastructures in underprivileged communities in Nigeria, to aid literacy. Hence, YEF constructed buildings in New Baptist, Primary School, Ijaiye, Oja Ale, Abeokuta, and Ogun. This primary school is situated in a rural community in Ogun State, Nigeria in conjunction with Coca-cola (Youth Empowerment Foundation, 2019). Another LNGO is Enterprise Global Development Foundation (AFE) launched a pristine water program for rural dwellers in some rural communities in 2017 (The Guardian Nigeria News, 2019). These examples indicate the critical role LNGOs play in facilitating the development of rural communities. Thus, LNGO are also categorized as key players (stakeholder), as relating to rural development.

3.9.7 INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS

International Non-Governmental Organization (INGO) is similar to local INGO in definition and function. However, most INGOs wield more influence in comparison to LNGOs. This capacity has been linked to its ability to impact global policies as pertain to rural development at a larger scale in comparison to LNGOs (Madon, 1999). Studies have shown that many INGOs that operate in Sub-Saharan Africa work together with LNGOs to accomplish projects with common goals. The prominence of INGOs like LNGOs in many communities is dependent on the level of statehood in operation in such communities: The interventions of INGOs is fewer in Sub-Saharan African regions where the government is able to meet her rural development goals.

Literature also indicates that Sub-Saharan communities with weak statehood tend to report a

proliferation of rural development projects by INGOs (Risse, 2012). INGOs are able to wield more influence because of their access to finance in comparison to many LNGOs. Most INGOs have more money to support the intervention of rural development projects in comparison to local NGOs. Also, because most INGOs have larger purses, they tend to be able to recruit qualified man-power to design and implement more successful rural development projects, in comparison to LNGOs (Ahmad, 2006). INGOs tend to wield substantially more finance, in comparison to LNGOs (Oxford, 2016) (Risse, 2012). Depending on the strength of the INGOs in Sub-Saharan Africa, many INGOs work with Sub-Saharan African countries' government to help achieve the goals of the global community as pertaining to rural development. (Juma, Mohamed, Wisdom, Kyobutungi, & Oti, 2016; Stafford-Smith et al., 2017). Organizations like USAID have carried out Agricultural interventions, which have alleviated poverty and improved structural projects in rural communities in Sub-Saharan Africa.

Other international INGOs like Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) have supported rural development projects by providing consultation concerning the development of the master plan INGOs have also provided technical capacity for rural development projects as shown in previous section with the DRIFF project in Nambia (Riehle et al., 2017). INGOs have built health centers in rural communities. They have also provided health centers for rural communities in situations when the government is unable to perform her role (Uprooted and overlooked Christian Aid, 2019).

Thus, the above mentioned are drivers of rural development in Sub-Saharan Africa, and thereby worthy stakeholders – because they have largely contributed to efforts towards rural development in Agriculture, road, electricity, education, water and sanitation and healthcare. It will not be amiss to state that without these stakeholders, the achievement of the sustainable development goals will be impossible.

3.9.8 PRIVATE SECTOR ACTORS

A private organization may be explained as any agency, partnership, corporation or individual set-up for the purpose of profit or as a public body. Hence, private sector actors consist of businesses that are in operation for financial gain (Mahoney, McGahan, & Pitelis, 2011). Private sector organizations are also not government owned or run. The World Health Organization (WHO) suggested that strategic partnership with the private sector organization

help in bringing about the desired goals of developmental organizations (Buse & Waxman, 2001). Hence, this suggests that private sector organizations may not necessarily opt to support rural development projects because such activity does not generate profit. Literature has shown that where private sector actors partner with rural development projects, they often contribute their quota by giving financial support.

Private sector actors are driven to support rural development projects in the form of Corporate Social Responsibility Wood (1991) explains that CSR allows for private organizations and societies to be entwined. CSR from the partner private sector organization may be explained as a structure to self-regulate or conscious attempts and self-efforts undertaken by organizations to self-preservation and enhance their operation. These illustrations are interesting because they show a meeting point between society and private organization in meeting rural development projects. Many CSR activities carried out are often driven by country policies. Perhaps, if the country policy is tailored towards the empowerment of certain aspects of rural communities, more CSR activities by private organizations will be carried out in rural communities. This position is supported by Cannon, (2012) in his book Corporate Responsibility where he posited that: "Business only contributes fully to a society if it is efficient, profitable and socially responsible."

Private sector actors have contributed to the rural development of many communities across the globe. They include private organizations like Coca-Cola that have supported primary school building projects in rural communities in the South-Western part of Nigeria, whilst other private organizations as well have assisted in the construction of other social amenities used in rural communities (Oguntade & Mafimisebi, 2011). However, a gap has been observed: majority of CSR activities are carried out in urban centers (Pradhan & Ranjan, 2011). This is not surprising, since many private sector actors are situated in urban centers.

It will be beneficial to the world of research if a model exists which incorporates strategic partnership of rural communities and private sector actors especially those that aid sustainable rural development projects in Sub-Saharan Africa.

3.9.9 RELIGIOUS GROUPS

In the past, some people have viewed religion as concerned with the mundane, hence,

uninterested in the material development of people. Karl Max (1818 - 1883), for instance, referred to religion as the opium of the people; and this is to drive home the point that religion not only dwells on the care of souls but also deludes the people to do nothing about their impoverished conditions.

Studies, however, show that despite the misrepresentation of religion in history, it is still a powerful influence in the lives of people, and not just cares for the souls, it also cares for the wellbeing of the people (Ogbe, 2017). When development is expressed from the context of religion, it is broad, holistic and covers a wide range of issues. Simultaneous to spiritual development, it encompasses human, environmental, ecological, social, economic, technological and other similar development activities.

A case study of the role played by the Justice, Development and Peace/Caritas (JDPC), a religious organization, in Refawa and Gamashina communities in Kano State, Nigeria made by Ogbe (2017) corroborates the fact that faith-based organizations are partners in development. Using conventional communication tools, JDPC has mobilized the people to build schools, health care centers and other critical infrastructure. It has also organized workshops on nutrition and general hygiene, training has been conducted to educate farmers on new seedlings and many farmers who are financially constrained have been assisted with pumping machines for irrigation farming. However, from the findings of the study, sustainability and ownership of the interventions remain a major challenge.

3.9.10 WOMEN'S GROUP

Women form the mainstay of most rural economies. More than two-thirds of the economically active female labor force in sub-Saharan Africa are employed in agriculture and women comprise about 47 % of the global agricultural labor force (Ohagwu, 2010). Despite their fundamental socio-economic responsibilities, rural women still have less access to knowledge, assets, services and participation in decision-making. These inequalities affect their ability to carry out critical roles in their communities, leading to rural poverty (Oino et al, 2015).

A study by Onio et al of ten registered women groups and fifteen informal women groups in Nyamusi county of Kenya concludes that if given opportunity, women have the potential to change their own socio-economic status as well as that of the communities in which they live

in for the reason that women groups act as an effective instrument for rural development. Once women groups have sufficient solidarity, experience and unity of purpose in their undertakings, rural development is achieved.

3.9.11 YOUTH GROUPS

Research has shown that youth groups serve as important instruments in the promotion of rural development projects in Sub-Saharan Africa. According to the United Nation categorization, a youth is defined as someone between the ages of 15 to 25years (United Nations Educational, 2017). The 2007 World Development report extended youths to range between 12 to 25years (World Bank, 2006). However, youth groups in urban centers differ from those who reside in rural communities. In comparison to youths in urban centers, a large proportion of rural youth play a major role in the economic chain of the community and thereby hold a voice (Bennell, 2007). These suggest that to run a successful rural development project in Sub-Saharan Africa the youths in that community have to be acknowledged – and depending on project type carried along. Bennell (2007) indicated that rural development projects have ignored youths in the past.

This calls to attention the need to examine if this exclusion in any way may have contributed to the failure reported in the sustenance of rural development projects over time in Sub-Saharan Africa.

3.10 SUMMARY

The chapter reviewed rural development projects in SSA and Nigeria and the key areas that influence the implementation/sustainability of these projects. Rural development paradigms in SSA have generally evolved from the Modernization, dual economy model in the 1950s to the Transformation approach in the 1960s, to redistribution with growth in the 1970s, to structural adjustments in the 1980s. In the 1990s, general rural development themes revolved around rural safety nets, stakeholder analysis, environment, sustainability etc. The 2000s focused on sustainable livelihoods, good governance, participation, sector-wide approaches (Ellis & Biggs, 2001). Based on the literature, most of the paradigms of rural development in SSA either had limited success, or failed because they were not favorable to countries in SSA. This was

made worse by the lack of infrastructure, corruption, cultural issues and other factors. The current paradigm, which are the SDGs are still being implemented, so whether they would be a success or failure in SSA is yet unknown. Therefore, this research will be helpful in finding ways to promote the SDGs through the development of the integrative framework and capability maturity model for better implementation of rural development projects.

This chapter also found that the ISO has not been able to successfully regulate building activities in SSA due to weak institutional structures amongst other factors. The case is similar for the standard building codes in SSA, especially Nigeria, as they have not been properly implemented due to poor monitoring.

Notable rural development projects in SSA – especially Nigeria – on education, water and sanitation, road construction, agriculture, electricity and health care were thoroughly reviewed. On assessing their success and failures, the study found that most of the key issues that have hindered these projects are inefficient monitoring and evaluation, lack of a sustainability plan, poor community engagement and political interference/instability. Thus, to illustrate best practices, the chapter specifically looked into the effect of appropriate planning and implementation, using the MDGs in Nigeria as an example. Rural development projects' key stakeholders in SSA were also discussed, because the successes or failures of projects largely depend on them. It was deduced that some of these stakeholders such as youth groups, women groups and beneficiaries are sometimes excluded during implementation, and this could lead to project failure. Hence this finding will also be confirmed through the quantitative study so as to proffer solutions through the development of the integrative framework and CCM.

Using the themes that have emerged from the literature in Chapters two and three, the next chapter reviews previous frameworks and presents a conceptual framework and capability maturity model for the research.

CHAPTER FOUR: FRAMEWORKS AND MODELS FOR SUSTAINABLE RURAL DEVELOPMENT PROJECTS

4 INTRODUCTION

This chapter aims to introduce a theoretically informed conceptual framework and capability maturity model. It begins with a conceptual framework drawn from the literature in order to expand knowledge of what is important in a rural development project lifecycle in section 4.1. Then it continues to a theoretical review in 4.2 of the Organization for Economic Co-operation and Development (OECD) framework, nestle rural development framework, the World Bank's SSATP framework for rural transport supportive of growth and poverty reduction, the Comprehensive Rural Development Program (CRDP) Framework and assesses the gaps in the frameworks in section 4.3. This discussion leads to the development of a conceptual framework on Sustainable Rural Development projects in section 4.4. It is at this juncture that the chapter makes the first novel contribution by drawing together information from the literature to develop an integrative conceptual framework that promotes rural development project sustainability in Sub-Saharan Africa. Section 4.5 introduces and justifies the CMM for rural development projects. The chapter concludes with a summary section in 4.6.

4.1. DEVELOPMENT OF A CONCEPTUAL FRAMEWORK

There are two types of frameworks: a theoretical and practical framework. A conceptual framework utilizes concepts to proffer solutions to a problem (Hicks, 1991). Crossan et al. (2003) describe a conceptual framework as one which may be explained utilizing graphic or narrative format (Crossan, 2003). A conceptualized framework gives clarity on the main variables to be understudied. It also makes clear the drivers of rural development and their inter-relationship. Some works of literature have also defined a concept to consist of individual components, which work together to control the whole (Jabareen, 2008) (Maxwell, 2013). Jabreen, (2009) goes further by defining a conceptual framework as: "a network, or "a plane," of connected concepts that gives a comprehensive picture of a phenomenon or phenomena. Most concepts that explain conceptual frameworks hold similar meanings. Jabareen, (2009) proposes an enlightening methodology for a conceptual framework analysis in seven phases which are mentioned below. They are namely:

i. The mapping of selected data sources;
ii. The categorization and research on selected data;
iii. Identification and concepts labelling;
iv. Breakdown and categorization of concepts;
v. Combining concepts;
vi. Breakdown and re-arrangement of concept and making it all make sense
vii. Validating the conceptual framework."

Hence, this research work has attempted to develop and conceptualize the varying components entailed in the planning and implementation of sustainable rural development projects. A gap of a unified conceptual framework has been observed in the integrative/comprehensive framework for the planning and implementation of sustainable rural development projects. To support this point, a 2009 report by the International Fund for Agriculture development suggests that "inefficient linkages between project components, lack of a unifying framework for the analysis of impact and underinvestment in institutional strengthening amongst others are constraining factors to the likelihood of rural development project sustainability" (IFAD, 2009).

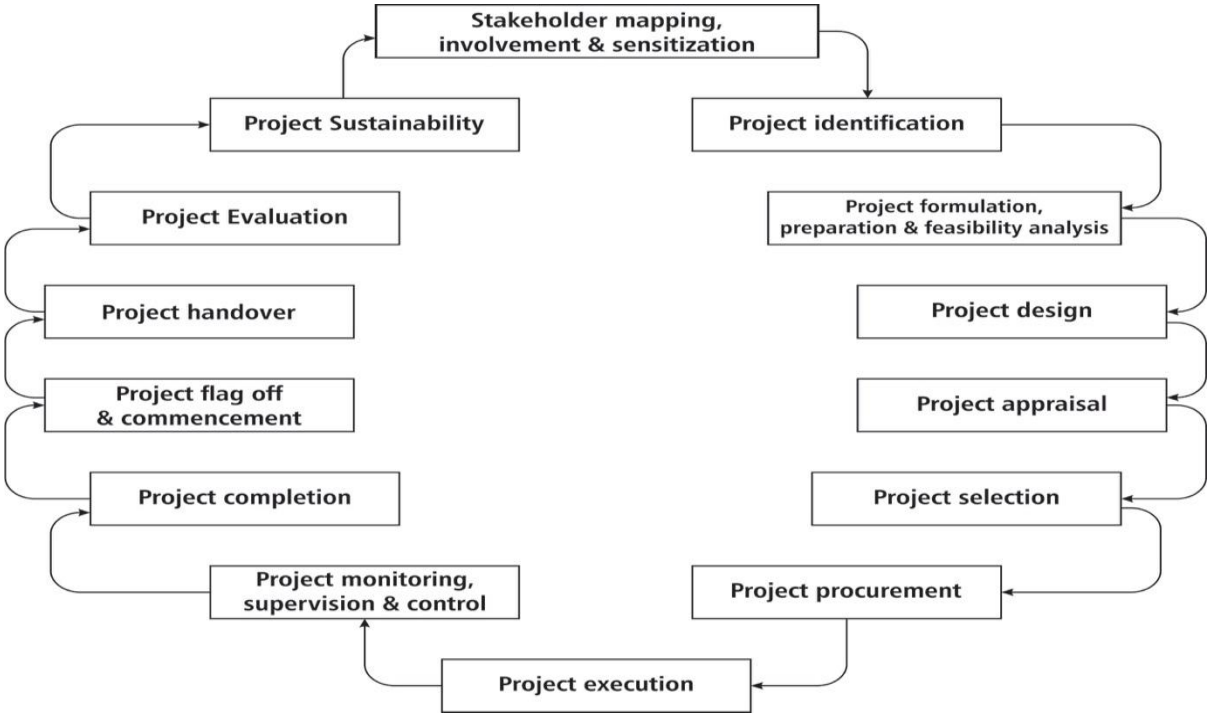
The Project Management Institute, the highest program management institute in the globe suggested from their body of research that there are five stages in a Project Life cycle. These are the: Initiating, Planning, Executing, Controlling and Closing phase (Project Management Institute, 2008). The challenge with the aforementioned stages is that they are generic. The recommendation by the Project Management Institute does not reflect the complexities synonymous to rural development programs.

Bennett, (2003) also suggested a six-phase cycle. Bennett's six-phase cycle is rather helpful in the development of construction-related projects. His recommendations have also been helpful in its applicability to other categories outside of construction – rural development projects inclusive. These phases are; "The Pre-project phase, Planning and Design, Contractor Selection, Project Mobilization, Project Operations and Project Closeout" (Bennett, 2003).

Dennis Rondinelli also proposed a useful twelve-stage life-cycle of development projects. These include Project identification and design, project formulation, Project appraisal, to name a few (Rondinelli, 1983). These guides have contributed to the body of research on the stages

of development projects. However, they are not exhaustive. Hence, this research work guided by literature has developed a conceptual framework on developmental projects in Sub-Saharan Africa. This knowledge is vital for a more robust understanding of the sustainability pathway through which a rural sustainable project may be attained.

Figure 4. 1: A conceptual framework on the life-cycle of rural development project



From the diagram above, there are fourteen stages in the conceptual framework on the life-cycle of rural development programs. The subsections below will give deeper insight into what each stage entails, based on the literature.

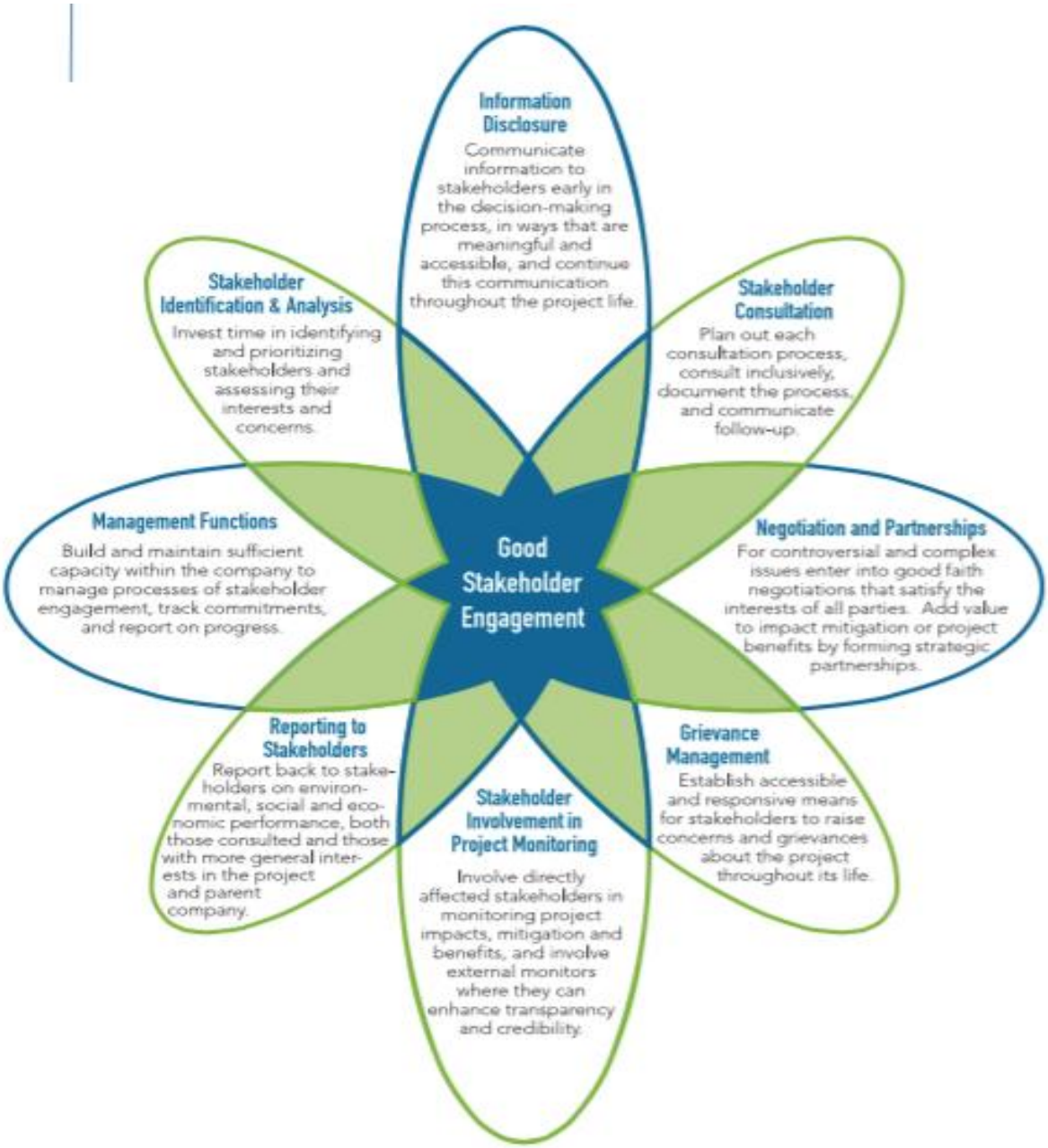
4.1.2 STAKEHOLDER MAPPING, INVOLVEMENT AND SENSITIZATION

Stakeholders in a rural development project are actors (organizations or persons) with a vested interest in the project being promoted. The criteria for stakeholder mapping incorporates deliberate assembling and breaking down of subjective data to decide whose interests ought to be considered when creating and additionally actualizing a venture (Schmeer, 2000). The involvement of every stakeholder is important and must be clearly stated for the success of a project, because some stakeholders have a higher level of influence on a project. Thus it is important to consider the level and phase at which they should be involved. A stakeholder

sensitization meeting is important for explaining the aim, expected outcomes and design of the rural development project to be implemented.

Barker mapped out these stakeholders as important, for any national project in Nigeria. These are: “National Government Agencies, Government Partners such as: USAID, DFID etc, State Government agencies, Local NGOs, Opinion leaders, Media and the academic sector” (ORIE, 2019). However, this list of stakeholders by Barker is not exhaustive. Community-based organizations/groups, religious organizations – to name a few – are also examples of key players in rural development projects in Nigeria and many Sub-Saharan African countries. Stakeholder engagement was processed from what was proposed by (IFC, 2007) as shown in the diagram labelled figure 4.2, below.

Figure 4. 2: A diagram on stakeholder engagement



Information in the diagram was adapted from IFC, 2017

4.1.2.1 STAKEHOLDER ANALYSIS

Stakeholder Analysis (SA) alludes to the strategy used to encourage institutional and strategy change measures by representing and frequently consolidating the necessities of the individuals who have a 'stake' or an interest in the reforms under consideration (The World Bank Group,

2001). With data on stakeholders, their inclinations, and their ability to contradict change, reform advocates can pick how to best oblige them, subsequently ensuring policies adopted are politically reasonable and sustainable. Stakeholder buy-in and endorsement is similarly as much about correspondence, schooling, and visibility as it is about strategic alignment. Stakeholders should have the option to rapidly and effectively comprehend how a new project or investment fits into the larger business picture. A stakeholder analysis permits the delineation and buildup of the fitting degree of correspondence with stakeholders' comparative with their impact and premium in the project.

Research has shown that a thoughtful stakeholder analysis will prime the implementer for the advocacy needed or prepare for the opposition that will be anticipated. Prell, Hubacek and Reed, (2009) are of the view that stakeholder analysis can be used to avoid inflaming conflicts, ensure that the marginalization of certain groups is not reinforced, and fairly represent diverse interests.

A stakeholder analysis can be of immense benefit in rural development project in the following ways:

i. **Gathering crucial input:** there is arguably no doubt that you don't know what you don't know. Oftentimes, key stakeholders can deliver valuable insight that can help keep rural development projects on track. In particular, studies have shown that it is beneficial to obtain the viewpoint of all stakeholders like the community leaders, beneficiaries, women group and other important stakeholders in the community. A study by Ramaiah et al., (2001) and Pérez Perdomo et al., (2016) support the aforementioned state. They suggest that in the best interest of rural development projects, information on the rural community should be obtained from all stakeholders in the rural community in order to have a holistic perspective of the community.

ii. **Gaining more resources:** If a stakeholder has a full understanding of what it will take to get a project off the ground, they may be able to help secure the people, tools, and resources needed to make it successful. However, the applicability of this is dependent on the project's aim. If the rural development project involves the community members on ethical basis, i.e. just to tick the box and not necessarily gain any value, they may

not obtain the desired information. This is because the rural dwellers may perceive that their ideas may not be utilized, hence they hold back their suggestions (Hamlyn, 2017). However, research has shown that if the intention for involving rural dwellers is instrumental, there is a higher chance of getting their cooperation – since the rural dwellers know the project funders and external implementers intend to use their opinions to enhance the communities' progress (Donaldson & Preston, 1995). This understanding is crucial in other to obtain maximal community support.

iii. **Building trust:** By consistently engaging and involving stakeholders in the process, trust is being built that may make them quick to support upcoming projects. Again, this realism is supported by Donaldson & Preston (1995) in their dichotomization into ethical and instrumental utilization of stakeholders. Stakeholders will only give their best, if they trust other team members. This was displayed with the Bright Program in Burkina Faso to promote the girl-child's primary school education in 132 rural communities. Findings from the study indicated that stakeholders were carried along adequately and this resulted in the sustenance of the project even after the project ended (Kazianga et al., 2013). It will be beneficial to the body of literature to carry out other studies that validate the effectiveness of this assertion.

iv. **Planning ahead:** Consistent feedback from key stakeholders helps anticipate feedback and requirements on future projects and gain buy-in more quickly. As earlier established and as shown by literature, without the open contributions from all stakeholders and at varying levels, the probability of attaining a successful rural development project is reduced.

4.1.3 PROJECT IDENTIFICATION

Project identification for rural development includes: preliminary stakeholder analysis, problem analysis, setting of objectives, analysis of alternatives, accountability analysis, logical framework thinking, analysis of assumptions and associated risks, progress indicator definition and stakeholder review. It is argued that this is the most critical stage of the cycle of any project because if the potential of the most viable concepts are overlooked at identification there is little prospect that they will be retrieved at a later stage (Cedep, 2014).

4.1.4 PROJECT FORMULATION, PREPARATION AND FEASIBILITY ANALYSIS

This stage will confirm whether the rural development project is viable or not. It involves taking a careful and critical look of the development project idea, weighing its various components and assessing the various aspects of costs for the project (Salim, 2015).

The following must be carried out in this stage:

1. Feasibility Analysis
2. Techno-Economic Analysis
3. Network Analysis
4. Input Analysis
5. Financial Analysis
6. Cost-Benefit Analysis
7. Pre-Investment Analysis

4.1.5 PROJECT PLANNING AND DESIGN

This phase has been viewed as a focal aspect in present-day rural project management. Project planning does not necessarily warrant project success. However, the absence of project planning will invariably contribute to project failure (Dvir, Raz, & Shenhar, 2003). While planning phase entails the putting together of essentials for rural projects, the design phase provides the structure of what has to be achieved, how it is to be implemented and how progress will be verified (ILO, 2010). Therefore, the design is the most crucial phase, as its quality will influence the following stages in the project cycle. Included in a project design are:

- A description of the project
- Goals, outcomes, and objectives, and when they will be completed
- Major deliverables, products, and/or features Success criteria, and/or monitoring and evaluation guidelines
- Budget estimates

4.1.6 PROJECT APPRAISAL

Project appraisal is part of project quality control. It is an analytical assessment of the project design to ensure that technical and design standards have been met and that there is consistency in the strategic or development plan, the priorities of development frameworks, and the donor criteria before it is presented to project stakeholders (ILO 2010).

4.1.7 PROJECT SELECTION

Project selection involves the approval of a project for financing. Projects that are to be financed habitually come to the selection stage with the wellspring of financing previously distinguished. For this situation, the job of the selection process is to embrace (or reject) the project appraisal and affirm that the project remains a worth funding.

A suitable project method for rural development projects is evaluation criteria. The most used criteria for development evaluation are: relevance, efficiency, effectiveness and sustainability. Utilizing a criteria of evaluation for the selection of a rural project helps to establish if the project will be relevant to the beneficiaries, able to fulfil its objectives, efficient, effective, and sustainable, using both quantitative and qualitative data (World Bank, 2016).

4.1.8 PROJECT PROCUREMENT

Project procurement is the process of planning, managing, and executing purchases of goods and services for a project. All project procurement must conform to the three pillars of Integrity, Transparency and Accountability. These apply to all activities before implementation, the actual implementation and to the subsequent operation and maintenance of the project structure. Project procurement includes 4 major processes, planning for project procurement, making the actual purchase, monitoring the procurement process, and procurement closeout (Project Management Foundations, 2014).

For development projects, personnel are dedicated to procuring and managing the equipment, supplies, and materials needed by the project. Because of the temporary nature of projects, equipment, supplies, and materials are procured as part of the product of the project or for the execution of the project (Barron and Barron, 2014).

4.1.9 PROJECT EXECUTION/ IMPLEMENTATION

The purpose of execution/implementation is to produce, deliver and deploy the project's outputs. Project setup refers to the production and implementation of project setup outputs, which in most cases are infrastructures that support the overall execution of the project. The project output is developed and implemented by the project team. Each project output should be made subject to quality assurance and quality control processes (Zwikael et al, 2019).

The criteria for measuring successful project execution include:

- Effective use and mobilization of resources
- Scheduled and timely execution of activities
- Outputs produced meet the planned specifications and quality
- Good accountability of resources utilization
- Key stakeholders informed of and satisfied with project progress

A project is said to be triumphantly implemented if deadlines are met, the budget is not over-scaled, the set goals are met, and the overall intervention is useful and recognized as useful by beneficiaries (Pinto & Slevin, 1987).

4.1.10 PROJECT MONITORING, SUPERVISION AND CONTROL

During the project execution or implementation stage, it is necessary to monitor, supervise and control the development and progress of the project. This provides the implementers of the project with regular and continuous feedback that can be used to make decisions, manage the project more successfully and plan for better project activities in the future. It also ensures that inputs, activities, outputs and external factors are proceeding according to the plan (Calvani et al, 2003).

4.1.11 PROJECT COMPLETION

When all of the outputs that are in scope have been delivered, project execution can be terminated. However, prior to project completion is the execution wind up which involves formally taking down relevant project execution infrastructure and the disbandment of those elements of the project governance model that have no ongoing role in the next project phase. In this phase, the project team must have ensured that all objectives of the projects have been met.

The criteria for successful development project completion include:

- Project assets transferred, financial settlements completed, and the team dissolved to the satisfaction of key stakeholders.
- Project end outputs are accepted and used by target beneficiaries.
- Project completion report accepted by the key stakeholders (Khang and Kyne, 2008).

4.1.12 PROJECT FLAG-OFF AND COMMENCEMENT

Project commencement takes place after physical construction, installation or other works has been completed. It is the phase in which the management activity or protocol for the project is first utilized.

4.1.13 PROJECT HANDOVER

Project handover is the point in the life cycle where deliverables are handed over to the sponsor and users. This phase also marks the beginning of operational support. Project handover needs to be considered as a process, not a date. This phase places the beneficiaries at risk if the end users of the project are not aware of their responsibilities and change requirements. Thus project handover requires pre-handover preparation and post-handover support for a smooth transitioning of the project (Anthony, 2017).

4.1.14 PROJECT EVALUATION

The criteria for development project evaluation is used to assess whether a development project achieved its goals. Evaluation also helps to measure if project success is being achieved. If a rural development project is implemented and succeeds, the evaluator wants to identify the factors contributing to the project success. Also, if the aim is to carry out a rural development project that may be sustained over time and the project fails to achieve the desired aim, the evaluation procedure will also look to understand the factors that may have hindered the project from attaining its goals. The evaluation procedure applies some methodologies in achieving this. They range from baseline assessment through mid-line assessment to end-line assessment (WHO, 2010; Ünlü, Bayram, & Uzun, 2016). This explanation suggests that there is a time for

an evaluation to be carried out, in order to capture the actual reality of activities on the project being evaluated. According to Khang and Kyne (2008) some of the criteria include:

a. Relevance: rural development projects are evaluated to ensure that the project implemented set out to solve what they were set out to do. This stage also assesses to see if policies are abided by.
b. Effectiveness: Ultimately, the evaluation stage checks to see if the needs of beneficiaries are met – as the rural development project intended coverage and targeting: This stage also assists to assess that the intended beneficiaries are being served.
c. Sustainability: This stage also examines to see how the project may be sustained over time, even after project completion (SPARC, 2013).

The result obtained from the evaluation stage helps to guide subsequent projects, especially as pertain to the planning and implementation stage. In conclusion, each stage is pivotal to the success of projects.

4.1.15 PROJECT SUSTAINABILITY

Project sustainability means planning the origin of the resources necessary to continue activities in the medium and long term, once the project has ended. Sustainability of a development project refers to content, resource use, size, impact on the environment, and finance. The criteria of sustainability for a development project are:

- social sustainability - impact on working conditions, compliance with international labor standards, social protection, etc.;
- financial sustainability - financing of follow-up activities, sources of revenue for all future operating and maintenance costs, etc.;
- Institutional sustainability - structures that allow the results of the action to continue. Consider local "ownership" of outcomes;
- Environmental sustainability - impact on the environment. Avoid negative effects on natural resources and on the broader environment (ILO 2010).

Literature also suggests that "the incorrect choice and use of procurement systems has led to the neglect of the four pillars of sustainability and this has consequently contributed to poor project performance" (Rwelamila, Talukhaba, & Ngowi, 2000).

4.1.15 ISSUES FACED IN RURAL DEVELOPMENT PROJECT LIFE CYCLE

Rural development projects differ significantly from urban development projects in several ways. These differences are particularly visible in the issues faced throughout the project life-cycle. For instance, compared to their urban counterparts, rural areas have less internet access which slows down communication during project planning and implementation; the lack of technical knowledge negatively affects project monitoring and evaluation; and unlike urban settings, project sustainability in rural areas is a great challenge because less funds are allocated for the continuity of these projects (NCSL, 2020). These cases are evident especially in Sub-Saharan countries like Nigeria.

In the planning phase, more often than not, projects meant for an area are planned in the cities without taking into consideration the actual need of the community or the participation of the local people themselves. There is problem of manpower as experts and qualified men are lacking. This is because of the fact that experts are often lost to private sectors which offer something more lucrative and also where there is attraction of working from the cities. Therefore, the greatest problems with rural development lie with the attitude, dedication, and competence of personnel involved (Anaeto, 2013).

4.2 A REVIEW OF RURAL DEVELOPMENT FRAMEWORKS

Research has shown the absence of an integrative rural development framework (i.e. cutting across different projects, processes, location, and sectors) that may be adapted in the implementation of rural development projects in Sub-Saharan Africa. However, organizations have developed some frameworks which have guided the stages of rural development programs. The Organization for Economic Co-operation and Development framework and nestle rural development framework, both organizational frameworks are one of those, and thereby examined.

4.2.2 THE OECD FRAMEWORK ON RURAL DEVELOPMENT

The rural development framework is a framework developed by the Organization for Economic Co-operation and Development (OECD) to assist governments of countries develop the economy of rural communities within their locales. This framework was endorsed in 2006 by representatives of the OECD member countries. The countries include Australia, Austria, Belgium, Chile, Canada, Czech Republic, Colombia, Denmark, Estonia, Finland, France,

Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States (OECD, 2019). The OECD rural development framework has been updated three times since its inception – the latest update was in 2018. Hence, the framework gives a perspective to guide rural development projects (Tamara, 2018). This framework focuses on the overall development of rural communities. The framework aims to provide rural dwellers with the same quality of life as those enjoyed by urban dwellers and focuses on long term impact on economic progression.

This OECD rural development framework suggests that the rural communities have light load economies in comparison to urban centers. In interactions with them and in an attempt to promote their economies, this has to be considered. This proposition by the OECD framework indicates the need for a different policy and mode of engagement specific to rural communities (Tamara, 2018). The framework also suggests the importance of supporting human capital development, infrastructure development and innovative development as long term promoters of factors for rural growth. As earlier stated, the framework also suggests the need for government to be proactive in the pursuance of rural development. Additionally, the framework indicates that the government must be willing to provide: "support for social enterprise and the voluntary sector which is a useful way to enhance rural communities." (Tamara, 2018).

The framework suggests that rural communities vary in levels of rurality. Some rural communities are located in urban centers, some are located close to urban centers, whilst the last category are located far away from urban areas. Hence, implementers of rural development projects are advised to keep this in mind when drawing rural development projects. The framework identifies the importance of stakeholder engagement in sustaining the desired rural community development projects. The framework suggests the importance of having government officials, private sector and third party engagement, who are non-governmental organizations and all other third party players.

The policy also suggests the importance of integrated investment. This is a useful suggestion because research has shown the usefulness of rural development projects engagement in integrated rural programs. The framework suggests that integrated investment helps to improve

the livelihood condition of rural dwellers and empower them with means to sustain the rural project implemented. As a case in point, the Mpeketoni Electricity Project (MEP) utilized the integrated rural development paradigm: in that the project was implemented alongside other structural-developmental projects in the community. The MEP was able to get back about 94% of the cost recovery used for this project – which indicates electricity demand and project success (Kirubi et al., 2009). According to this framework, the integrated investments have the potential to reap the benefits of complementarities when they are adapted to suit the needs of different community types. The framework suggests that different sectoral policies should co-ordinate and mutually reinforce, and mix to meet differing local needs.

Figure 4. 3: The OECD framework on rural development

	Old Paradigm	New Rural Paradigm (2006)	Rural Policy 3.0 –Implementing the New Rural Paradigm
Objectives	Equalisation	Competiveness	Well-being considering multiple dimensions of: i) the economy, ii) society and iii) the environment
Policy focus	Support for a single dominant resource sector	Support for multiple sectors based on their competitiveness	Low-density economies differentiated by type of rural area
Tools	Subsidies for firms	Investments in qualified firms and communities	Integrated rural development approach – spectrum of support to public sector, firms and third sector
Key actors & stakeholders	Farm organisations and national governments	All levels of government and all relevant departments plus local stakeholders	Involvement of: i) public sector – multi-level governance, ii) private sector – for-profit firms and social enterprise, and iii) third sector – non-governmental organisations and civil society
Policy approach	Uniformly applied top down policy	Bottom-up policy, local strategies	Integrated approach with multiple policy domains

Image sourced from OECD 3.0 (Tamara, 2018)

4.2.3 THE NESTLÉ RURAL DEVELOPMENT FRAMEWORK

Nestle rural development framework was developed because: "Nestlé has identified areas of focus where shareholders' and society's interests intersect, and where value creation can be jointly optimized.... Rural development: because the overall wellbeing of farmers, rural communities, small entrepreneurs and suppliers are intrinsic to the long-term success of our business. We aim to demonstrate and measure systematic and continuous improvement in ... these areas" (Nestlé Creating Shared Value Report, 2011)

The Nestlé Rural Development Framework (RDF) aims to guide the work of Nestlé with

farmers through its farmer connect programs and to inform its work on responsible sourcing through its trade partners. The RDF was put together from findings from studies in 11 countries (i.e. Colombia, China, Côte d'Ivoire, Indonesia, Ethiopia, Kenya, Myanmar, Mexico, Philippines, Vietnam and Thailand), of which 3 countries (Côte d'Ivoire, Ethiopia, and Kenya) are in SSA, and it aimed to align business and social needs in order to ensure long term supply of raw materials and simultaneously deliver upon its ambition to create shared value (Nestlé, 2015).

Whilst Nestlé did not set out to establish control groups, in both Mexico and Kenya the data was gathered from both existing Nescafé Plan farmers and Non-Nescafé Plan farmers.

The findings showed that farmers who have received supply chain interventions (improved seeds and training) have higher productivity and incomes than those who do not. The Nescafé Plan farmers also have better livelihoods as measured by fewer months without adequate food compared to Non-Nescafé Plan farmers. Whilst these studies did not compare Nescafé Plan farmers before and after its support, the results provide strong support for the rationale behind the supply-chain interventions (The Nestlé Rural Development Framework, 2015).

Certification schemes also make an important contribution by addressing the worst practices and improving environmental and social performance. Nevertheless, despite the supply chain interventions and certification, the findings from Nestlé's RDF baselines indicate that other approaches are needed to improve livelihoods and drive rural development. The diagram in figure 9 gives a glimpse into the framework developed by nestle (Nestlé Nutrition Rural development, 2011).

Figure 4. 4: Nestles supply chain to attain rural development

Quoted from (Nestlé Nutrition Rural development, 2011)

Over the years, nestle has used its resources to help find ways to improve crop resilience through its R&D centers. It helps produce disease and drought resistant varieties. Nestlé continues to partner with experts in the field of water to develop awareness and helps implement best practices regarding water conservation and sustainability.

The rural development project by nestle is commendable. However, from the expansion of the project it may be deduced that a top down approach was utilized. This is because the rural dwellers who benefited from the intervention were not carried along in the project design. The Nestlé framework may not be the best approach for other rural development projects because of this.

4.2.4 THE WORLD BANK'S SSATP FRAMEWORK FOR RURAL TRANSPORT SUPPORTIVE OF GROWTH AND POVERTY REDUCTION

The Africa Transport Policy Program (SSATP) is a multinational partnership of 36 SSA countries, which developed a framework to reduce poverty, accelerate agricultural development, and improve rural transport in SSA countries. The framework suggests that a clear statement of ends and means to effectively implement rural development projects must be shown by state and federal governments, as well as other development implementers of a country. The framework encourages stakeholder engagement and concludes that it is necessary for a rural transport framework to incorporate aspects of planning, implementation, policy, institutional arrangements, financing, monitoring, and evaluation (Banjo et al, 2010). The key elements of the framework are highlighted below:

- Setting of macro-level objectives for rural mobility and access to aid agricultural development and rural growth.
- Defining and adopting sector-specific and macroeconomic policies for a rural access and mobility objective that supports agricultural development and rural growth.
- Adopting long-term perspectives to provide for scaling up.
- Ensuring participation and input from the relevant sectors and the population in identifying and prioritizing proposed interventions to achieve maximum co-benefits.
- Adopting design and implementation approaches and methods for rural transport interventions to address specific elements of rural growth.
- Establishment of a monitoring and evaluation system

- Defining the rural road network, appropriate ownership and management roles and responsibilities, designing standards, and financing arrangements.
- Planning and provision for maintenance for all new road transport and infrastructure investments to preserve their condition and for the upkeep of existing maintainable roads in good to fair condition.
- Planning for transport services together with the infrastructure (Hine, 2014).

The policy cycle approach for rural transport projects, utilized by the SSATP is shown in figure 4.5 below:

Figure 4. 5: SSATP policy cycle approach

Policy Cycle Phase	Tools and Instruments	Results achieved
Knowledge creation	Guidelines, case studies, definition of methodologies, policy notes, Political economy analysis…	Knowledge made available and option for solutions proposed
Knowledge dissemination	Exchange of experience and sharing best practices, study tours and technical notes	Awareness of problems and solutions
Advocacy	Policy dialogue to identify solutions to problems, building on knowledge and political economy analysis	Readiness to take decisions
Knowledge application	Pilot Projects, technical assistance for Policy development	Decisions prepared to be implemented

Source: Africa Transport Policy Program (SSATP) (2017)

The framework has been applied to several countries in SSA including Nigeria and Uganda. It is commendable for emphasizing on the need for a mixed approach to rural development, which offers a means of identifying mobility problems in rural settings through knowledge creation and prioritizing interventions through planning and implementation (Porter, 2007).

4.2.5 THE COMPREHENSIVE RURAL DEVELOPMENT PROGRAM (CRDP) FRAMEWORK

The Comprehensive Rural Development Program (CRDP) Framework was approved in August 2009, and is implemented in South Africa. The rural development framework encompasses, but is not limited to the improvement and development of infrastructure for economic use, which is; improved transport networks like railways and roads, rural electrification, communication networks like mobile devices, telephone landlines, radios and televisions. It also consists of constructing shopping malls in rural areas, providing internet connections, having available post offices, community gardens, agricultural fencing, dipping tanks, irrigation schemes, and the development of savings cooperatives for wealth creation and productive utilization of resources (Olivier, Van Zyl & Williams, 2010).

Another major objective of the framework, is the development and improvement of social infrastructure which encompasses improving the availability and accessibility of WASH facilities such as showers, toilets, ablution systems etc. to promote healthy living. Social infrastructure includes skills development centres, community halls, health clinics that are accessible and well-resourced, recreation and sports facilities, rural libraries and schools to aid education (Olivier, Van Zyl & Williams, 2010).

The framework is conceptualized on the basis of three integrated pillars: land reform, rural development (defined as infrastructure), and agricultural transformation. A key focus of the framework is on communities taking control of their own destiny with government's support, and on utilizing natural resources as the basis for economic development (MRDLR 2009). Deductively, the framework lays stronger emphasis on integrating land reforms and agricultural support, than other sectors of rural development.

4.3 GAPS IN THE FRAMEWORKS REVIEWED

The frameworks examined have contributed to efforts made towards rural development projects. However, some gaps have been observed in these frameworks. Failure to account for these gaps will adversely affect the quality of rural development projects implemented. Hence, this section examines this.

4.3.2 OECD RURAL DEVELOPMENT FRAMEWORK

The OECD's framework has been helpful in understanding rural development in Sub-Saharan Africa. However, it contains some omissions which are discussed below.

First, the OECD does not consider country dynamics particular to rural communities in Sub-Saharan Africa. Dynamics such as corruption, and its impacts on rural development projects in the region. Hanson (2009) suggested that: "Africa is widely considered among the world's most corrupt places, a factor seen as contributing to the stunted development and impoverishment of many African states." Hence, a framework that omits this component in drawing up the processes for rural development projects implemented in the region will not suffice. This suggests the need for a framework peculiar to Sub-Saharan Africa, in order to propel the rural regions.

Secondly, the framework also fails to point to the importance of monitoring and evaluation in promoting the sustainability of rural development projects in Sub-Saharan Africa. The framework has been beneficial since it has been reviewed three times. However, how will project success be evaluated if it is not included in the framework, especially in a region like Sub-Saharan Africa where close monitoring may be needed?

Thirdly, one must commend the framework's downward upward approach to rural development. However, the approach fails to find a way to promote consensus amongst stakeholders when varying perspectives laid forward in the process of attaining a sustainable rural development project. A rural development project that fails to put this into consideration at the early stages, may fail to understand the stakeholders and possible ways to bring the group to a point of consensus.

Fourthly, if any, very few rural development projects in Sub-Saharan Africa have recorded sustainability by applying the OECD framework. Freshwater & Trapasso (2014) suggests that rural communities in Sub-Saharan Africa are growing at a much slower pace in comparison to rural communities in more developed countries of the world. Again, this suggests the need for an integrated rural development framework, developed with nuances and dynamics peculiar to Sub-Saharan African countries.

4.3.3 THE NESTLÉ RURAL DEVELOPMENT FRAMEWORK

The challenge observed with this framework is its top-downward approach. Research has shown that the top-down approach to rural development may not necessarily promote project sustainability. This is because the top-down approach does not promote project ownership amongst rural dwellers. Research also suggests that project ownership propels project sustainability, since the beneficiaries see the projects as theirs.

4.3.4 THE WORLD BANK'S SSATP FRAMEWORK FOR RURAL TRANSPORT SUPPORTIVE OF GROWTH AND POVERTY REDUCTION

The SSATP framework contains major key elements such as planning, implementation monitoring, evaluation, knowledge creation and knowledge dissemination. However, Porter (2007) highlighted that the framework's formulaic approach does not take less easily quantifiable data into account and this can reduce the ease of its application. More importantly, the framework is majorly tailored for rural transport and agricultural projects, thus neglecting other sectors such as health, education, WASH, electricity, etc.

4.3.5 THE COMPREHENSIVE RURAL DEVELOPMENT PROGRAM (CRDP) FRAMEWORK

The gaps found in the CRDP framework are the greater emphasis placed on agricultural transformation and land reform, as well as the fact that the framework was specifically developed for rural areas in South Africa. The gaps necessitate the need for an integrative framework that is applicable across SSA countries, and cut across all the sectors of development including health, WASH, transportation, electricity, and agriculture etc.

4.4 TOWARDS AN INTEGRATIVE FRAMEWORK FOR SUSTAINABLE RURAL DEVELOPMENT PROJECTS

The United Nations (2008:16) presentation of UNECE/OECD/Eurostat working group on statistics for sustainable development, explains a framework as: feasible tools of postulations and guidelines which assists in identifying set of sustainable rural development determinants (Moran, Wackernagel, Kitzes, Goldfinger, & Boutaud, 2008). Theoretical frameworks that explain the processes through which rural development programs may be sustained are very

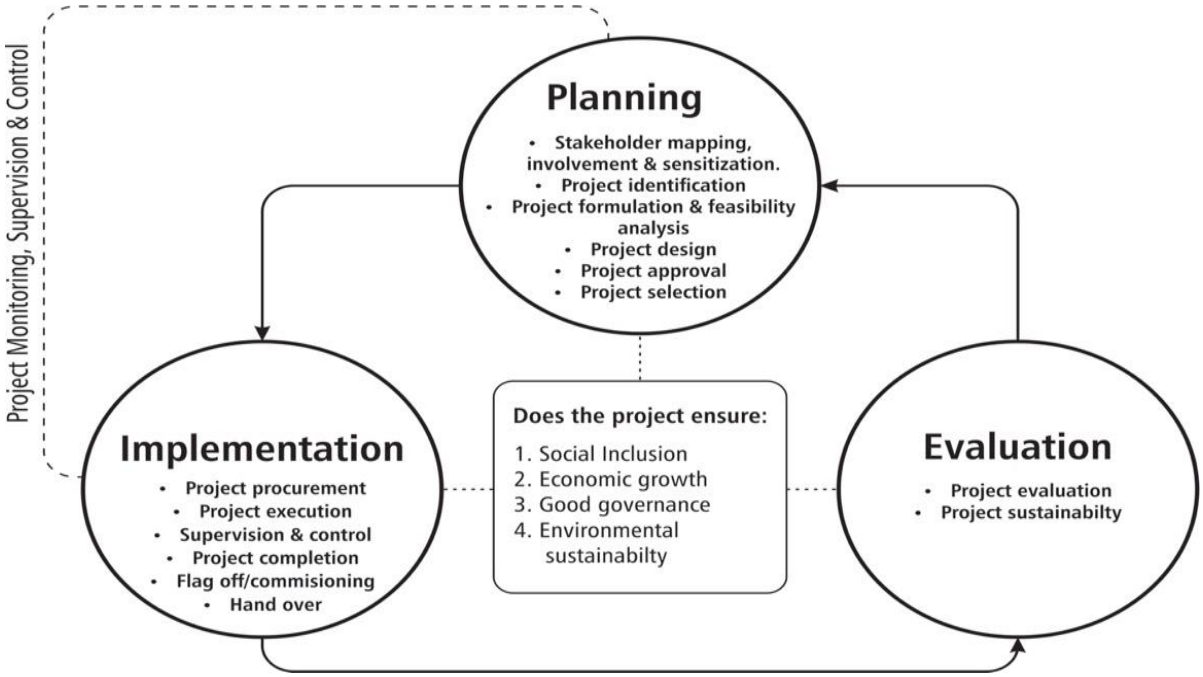
few. One of such is Ekong's et al. (2016) paper titled: "A Framework for Sustaining Rural Development Program: Evidence from Micro-Panel Data in Nigeria" – which postulates that for rural development programs to be sustained, four determinants have to be in place. These are: "Stakeholders' Participation, Managerial Capacity, Project Monitoring, Training and Institution Framework" (Ekong and Onye, 2016).

These determinants are key determinants. However, this framework does not fully capture the holistic determinants required for the sustenance of rural development programs in Sub-Saharan Africa. In "struggling – a comparative framework for evaluating sustainable development programs", Justin M. Mog (2004) includes the importance of designing and implementation in a sustainable rural development framework, which then inculcates the recipient's elements into the process of attaining long term sustainability. One of these elements postulated is community diversity and heterogeneity of interest (Mog, 2004). The validity of Mog's position is validated through the Bright project - an educational project implemented to increase the number of females enrolled in primary schools and the overall improvement of primary education in Burkina Faso.

The Bright Projects sustenance was tested after 10 years of project completion. The project in comparison to other educational projects carried out in Sub-Saharan Africa was able to retain many of its original components for a period of time because the intervention was designed to adapt its processes to the rural communities in which the project was implemented (Ingwersen et al., 2019).

In "Sustainable Development: A Critical Review", Sharachchandra M.Lélé points to the importance of understanding the varying dimensions of sustainability (Lélé, 1991). Drawing from literature, this research work has come up with a conceptual framework, as shown in figure 4.6, to promote rural development project sustainability in Sub-Saharan Africa. Postulations from the proposed conceptual framework will be tested during the course of the study.

Figure 4. 6: A conceptual framework on sustainable rural development projects



4.5 CAPABILITY MATURITY MODEL (CMM) AND RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA

The genealogy of CMM may be traced to the United States Ministry of Defense. CMM also has its root in computer development. The concept maturity connotes formality level and efficiency of processes (Humphrey, 1988). CMM is a procedure through which the progressive steps of a project are captured. These progressive steps then give a foundation for continuous improvement. The CMM is able to monitor and provide a pattern for continuous development through the use of a framework (Araujo, Cassivi, Cloutier, & Elia, 2007). The CMM is established on small progressive steps. Literature indicates that at the heart of the objective of CMM is its ability to guide projects which aim to increase project delivery (Joubert, 2007). The CMM consists of five maturity levels. These five maturity levels are mediums to estimate the maturity of an establishment or projects procedures. The five maturity levels also assess the dimensions of the aforementioned procedures (Pak & Song, 2016).

These are the five levels of the CMM:

1. **Initial**: the process at this stage is characterized by some level of chaos. For instance, the processes to achieving a set goal may not be documented. The processes at this stage according to the CMM model are also characterized by little or a lack of structure. This category is characterized by rural development projects, which fail to evaluate the actual need of the rural community in which intervention is implemented. The initial level may be described as an ad hoc process. A few CBOs that undertake rural development projects function at this stage. Some fledgling LNGOs also fall within this level. Research suggests that the quality of result generated at the initial process may give variations which may pose difficult to measure adequately. This porosity has been linked to the absence of structure (United Nations Development Program, 2014). A study by Stefan Neumeier (2017) suggests that a successful rural development project is most effective if it is driven by the recipient rural community (Neumeier, 2017). While this position is correct, a rural development project that follows this position hook, line and sinker may be unsuccessful – if prior community analysis is not carried out to assess essential structures necessary to be put in place – before intervention is implemented. Hence, the presence of structure in the implementation of rural development projects gives room for measures by which such projects may be evaluated (Mishra, 2016). The initial stage lacks this structure, hence rural development projects implemented at this level are somewhat based upon chance.

2. **Repeatable**: The repeatable process of CMM holds that some level of actions may be replicated with assurance of yielding the same result. The repeatable level of CMM introduces basic structure, in comparison to the initial level (Araujo et al., 2007). Rural development processes at this level introduces basic formation into rural development projects. However, structures adapted into rural development projects at this level, is not sufficient – howbeit, progressive in comparison to the initial stage. This stage adapts basic processes like the cost of running an intervention and time schedules (Global Cyber Security Capacity Center, 2017). A rural development intervention that seeks to assess the perspective of postnatal women as pertain to health center safety, will know the time to meet up with these women, because the antenatal days of the community members have been investigated. However, this in itself is not sufficient to ensure that the intended aim of the rural intervention project is achieved – i.e.: that the time is

known doesn't mean the medium of getting this information (questionnaire) is well-structured to capture the study aim. This process of maturity like the initial stage is populated mostly by CBOs and INGOs. Some government parastatals in Nigeria, assigned with the task of rural development projects also fall within this level of maturity because of their equable disposition to assignments (Abudu, 1986) (Auta et al., 2017). This is what this level of the CMM entails, as pertains to its application in rural development projects.

3. **Defined**: This level of processing is characterized by a more advanced definition and structured documentation, in comparison to the repeatable level. Rural development projects at this level consist of defined documentations, which aid uniformity. At this stage, everyone on the team uses a unified approved documentation. Hence, this process is more structured and results derived are quite similar. Some CBOs and LNGOs operate at the defined level of the CMM (Osei, 2017). A few INGOs also operate at this level as well, especially INGOs that contribute a small amount of funds to rural development projects in Sub-Saharan Africa. Government agencies involved in rural development projects also operate within this category (Hasan, Nahiduzzaman, & Aldosary, 2018). Perhaps, everyone may be required to utilize an excel sheet when reporting processes undergone in the intervention of rural development projects in Sub-Saharan Africa. However, the data entry process may be porous and rife with errors.

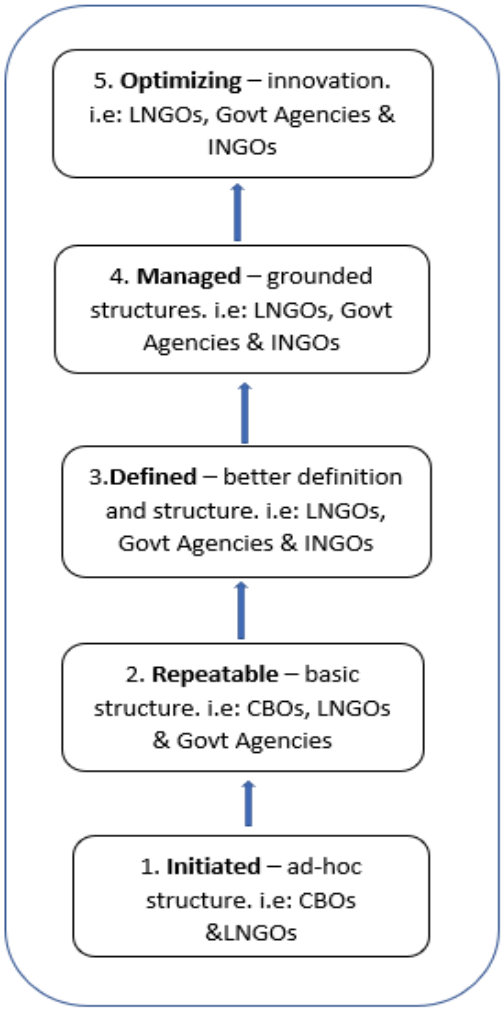
4. **Managed**: This level is more advanced as pertain to the input of structures. More defined measurements are centered in place at this level. Additionally, this process of CMM is characterized by adequate monitoring because of its stolid structure. Rural development at this stage ascertains uniformity and efficiency (Paulk, Curtis, Chrissis, & Weber, 2011). INGOs like Save the Children, The United States Agency for International Development (USAID), Melinda and Bill Gates Foundation and well-financed INGOs function on this level (Alfaro, Graber, Narayanan, Levin, & Arbor, 2017). Rural development projects executed on this level are carried out with some measure of precision. The structures at this level of CMM are more defined. The rural development projects utilize the best hands to forestall rural project success. Monitoring and evaluation at this stage is well panned out and scaled into the project at the design

stage. Rural development projects carried out on this level also utilize modern technology and follow international guidelines like the ISO rules. An example of a rural development project carried out on this level is the World Bank sponsored project in Nigeria – the DRFFI project. Rural development project failure at this level is often dependent on other salient factors beyond the control of structure (Udeh, 1989).

5. **Optimizing**: This process of CMM is focused on continual improvement and innovation. Thus, at this level, organizations invest in research to find out what can be improved upon to further aid productivity. Rural development stakeholders at this level are predominantly INGOs and a few properly funded LNGOs. A study by Drape at al. (2016) on "Challenges and Solution to Higher Education Institutes in Africa", funded by USAID and InnovATE under USAID/BF /ARP exemplifies the fifth level of the CMM (Drape, Rudd, Lopez, & Radford, 2016). Some well-funded government parastatals focused on rural development interventions also fall within this level of CMM (Baro, Bosah, & Obi, 2017). Melinda and Bill Gates foundation provides an example of an INGO that works in Sub-Saharan Africa that falls within this category. Over the years, Melinda and Bill Gates foundation have sponsored research projects. A recent seed grant was given to Iowa State University to partner with organizations in Nigeria, Malawi and Zambia on a pilot study to seek out access to improved different types of seeds (New Grant to Improve Quality Seed Access in Sub-Saharan Africa, 2019). Rural communities in these regions will benefit from this because they are predominantly farmers. Subsidiaries of the United Nation also fall within this category of the CMM. Various studies have been conducted and are being conducted to aid rural development by large pocketed INGOs (Despard, Ansong, Nafziger-Mayegun, & Adjabeng, 2018).

These listed above are the five levels of the CMM. The CMM is hierarchical and progressive. The CMM may be utilized as a medium to recognize where a rural development project or key players is, in their contribution to rural development intervention. Hence, the reason for applying it to rural development in Sub-Saharan Africa.

Figure 4. 7: Utilizing CMM to capture the levels in which stakeholders play in rural development project



4.6 SUMMARY

According to Van Der Ploeg et al., (2000), a new rural development model is emerging and this is a complete turnaround from the Modernization, dual economy model from the 1950s. This new model can be described as a Multi-level, Multi-actor and Multi-faceted one. Also, this model requires a framework that incorporates the new dynamics and is conducive to the objectives of rural development (Seddon, 1976). This chapter developed a conceptual framework on the lifecycle of rural development projects. fourteen stages were deduced from the literature review to include: stakeholder mapping, involvement and sensitization; project identification; project formulation, preparation and feasibility analysis; project design; project appraisal; project selection; project procurement; project execution; project monitoring and

supervision; project completion; project flag off and commencement; project handover; project evaluation; and project sustainability. All of these stages were defined and explained.

Previous frameworks for rural development, specifically the OECD framework, the World Bank's SSATP framework for rural transport supportive of growth and poverty reduction, the CRDP framework and the Nestle rural development framework were then reviewed. The OECD framework and the SSATP framework supports stakeholder involvement, human capital development, etc. which are important in SSA. While the Nestlé framework has helped to improve the livelihood of farmers in rural areas. Although the OECD framework helps in understanding development in SSA, it omits the influence of corruption on development in SSA, the importance of monitoring and evaluation and fails to provide a way to promote consensus amongst stakeholders in cases of varied opinions. The Nestlé framework on the other hand adopts the top-downward approach which is less effective in implementing sustainable rural development projects. The World Bank's SSATP framework was criticized for being majorly tailored towards rural transport and neglecting other key sectors of rural development, and the CRDP framework is country-based (i.e. specifically for South Africa). These highlighted gaps have created a necessity for an integrated rural development framework, developed with nuances and dynamics peculiar to Sub-Saharan African countries.

Taking into consideration, the best practices and gaps from the frameworks discussed, the initial conceptual framework created from literature, and the current dynamics of SSA and Nigeria, a novel conceptual framework was created with key questions to promote project success such as social inclusion, economic growth, good governance and environmental sustainability. This conceptual framework will be tested and improved on with the findings from the qualitative and quantitative study. The CMM will also be developed to ensure that the progressive steps of a rural development project are captured. The next chapter presents the research design and methodology used to meet the research objectives.

CHAPTER FIVE: RESEARCH DESIGN AND METHODOLOGY

5. INTRODUCTION

The purpose of this chapter is to describe and justify the methods used in meeting the research aim and set of objectives. This portion of the study elucidates on the research procedure applied in this research work, detailing the ways that data was collected and justifying why the approach has been selected over others. To this end, the chapter outlines the philosophical perspectives that underpin this research. This leads into a discussion about the reasons for selecting an abduction approach. The narrative then turns into addressing the research design. The mixed method approach consisting of qualitative and quantitative study is then discussed, followed by a breakdown of each method. A discussion of how quantitative and qualitative data was collected and analyzed is included. Finally, a reflective, critical overview about the ethical issues within this research is provided. This is largely based on the fieldwork that took place in six states, representing the six geopolitical zones in Nigeria. A summary of the chapter is provided at the end before moving onto the results chapters (six and seven).

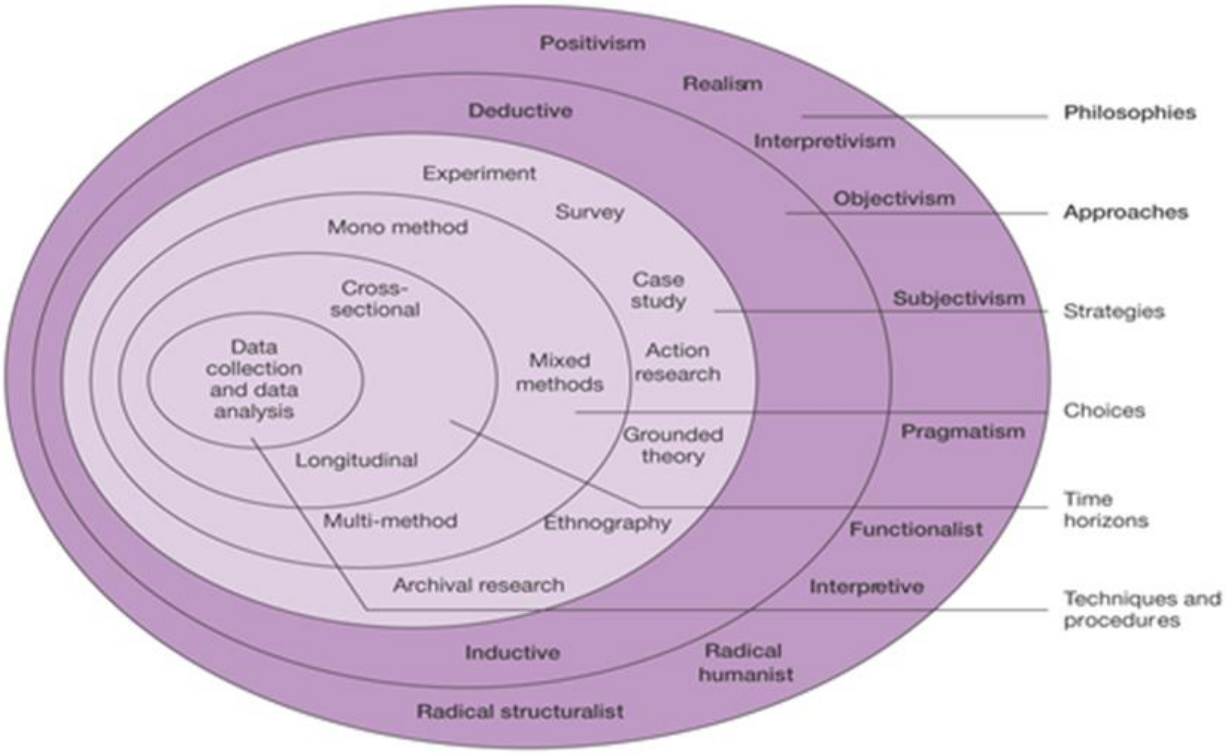
5.1. THE RESEARCH PROCESS

One of the most important aspects of any research work is its research methodology section, which is the bedrock upon which research procedures are built. It is important that the research methodology decided upon by a researcher must be chosen carefully and applied in a standardized and uniform manner (Creswell & Plano-Clark, 2011). Literature indicates that the review of tested paradigms serves as a medium through which advanced research methods are birthed and perspective obtained (Holden & Lynch, 2004). Kagioglou et al. (2000) and Saunders (2009) have all outlined the importance of segregating the research activities into distinct stages, layers or phases which provides a sense of sequence and serve as a guideline for in ensuring the research process is executed as planned. Kagioglou et al (2000) proposed the ‘nested methodology’ model to identify philosophical standpoints. This model comprised of three layers of knowledge to be considered in which the research places itself against; the research philosophies, the research approach and the research strategies.

Saunders’ research onion on the other hand, describes research development stages and steps

in a very detailed manner. It provides an effective way to develop a research methodology and is adaptable to different types of research (Bryman, 2012). Hence, Saunders et al. (2016) research onion was selected as a guide for this research methodology because it is a tested model (Saunders, Lewis, & Thornhill, 2009a), whose suggestions are reliable, applicable, and valid. Like the layered parts of an onion, Saunders et al. (2016) research onion postulates that the phases of research are synonymous to an onion – they are in layers of five. The stages include research philosophy, research approach, research strategy, research choices, research techniques and procedure accordingly. This study takes cognizance of this in the research process, and the arrangement of this chapter is therefore in the order of the research onion by Saunders et al. (2016). The research onion is illustrated in figure 5.1 below:

Figure 5. 1: The Research Onion



Source: Saunders *et al.* 2009

5.2. RESEARCH PHILOSOPHY

According to Saunders et al (2016), the research philosophy is the most outermost layer of the

research onion. The research philosophy explains the process of assumption undertaken by the researcher (Cameron 2009). The assumptions developed from a research philosophy serves as a reason for carrying out a study (Flick, 2015). Research philosophical traditions are comprised of two standpoints; positivist and interpretivist. In general, these two standpoints, differs in the assumption on the nature of reality.

Positivism entails the empirical observation of real events, and explanation with logical analysis (Kaboub 2008). This definition suggests that a researcher with this research philosophy embraces statistics and large numbers. Hence, the positivist approach generates research findings by gathering the popular knowledge of people on a topic of interest. The positivist research philosophy embraces the use of a quantitative research method because a wider number of respondents are needed to arrive at an empirical finding. However, Snape & Spencer (2003) criticized the positivist perspective on the basis that if social happenings may only be measured by observation, there is a chance that futuristic observation may deviate from the current rule. Consequently, a rule that gives room for possible deviation was needed. The interpretivist balances out the loopholes in the positivist philosophy. Central to the interpretivist approach is that the researcher is part of the research process: which is that the researcher cannot be fully objectively removed from the research (Horrigan-Kelly, Millar, & Dowling, 2016). Table 5.1 below shows the difference between the positivist and the interpretivist approaches.

Table 5. 1: Differences between the Interpretivist and the Positivist Approach

	Interpretivist	**Positivist**
Researcher	Is part of the evaluation being carried out	Must be a freethinker about the research been studied
Explanation	The mission is to describe/ explain causality	The mission is to enlarge general knowledge the research
Research Progress	Data is gathered, and meaning is induced from gathered data	It applies hypothesis and deduction into research.
Concepts	It integrates the viewpoint given by stakeholders	The concepts have to be put in use, so they can be measured
Methods of Generalization	Theoretical conjectures	Statistically
Sample Size	Small-scale number of cases are selected to address specifics	A larger sample size is required
Human Interest	This guides research	Is not pertinent

Source: Easterby-Smith Et al, (2002)

Seeing the strengths and weakness of the interpretivist and positivist philosophy and the criticisms they have garnered – this study settled for the post-positivist research philosophy which opines that finding from research gives an approximate understanding of reality, and not an accurate understanding (Crossan, 2003) (Al-Saadi, 2014). For this reason, the post-positivist philosophy was applied in obtaining information from respondents on their understanding of sustainable rural development projects through quantitative and qualitative data.

Ontological, epistemological and axiological assumptions are interconnected and form the underlying characteristics of the research philosophy of a research project (Saunders et al, 2012). Epistemology which explains how the researcher knows what she or he knows has already been reviewed through the interpretivist, positivist and post-positivist discussion above (Bryan, 2008). Thus the discussion regarding philosophical assumptions in the following section shall include the stance toward the nature of reality (ontology), and the roles of values in the research (axiology).

5.2.1. ONTOLOGY

Ontology describes the difference between reality and deduced reality. It particularly considers how reality assessed affects behavior. There are three perspectives to the ontological outlook from Saunders research onion. These are the objectivism, constructivism, and pragmatism (Saunders, Lewis, & Thornhill, 2009b). Bryan and Bell (2015) explain objectivity as a situation whereby social realities have their independent existence and meaning, apart from individual connotations. This means that social comprehension is obtained objectively. Constructivism believes that information derived from research is influenced by the researcher's experience (Hatch & Cunliffe, 2006). This shows that the researcher's interpretation of the phenomena being studied guides the research findings reported

Based on the specific context of this research which is to develop an integrative framework for the planning and implementation of sustainable rural development projects in Nigeria, constructivism was applied by reviewing secondary data in Chapters 2, 3, and 4 to garner findings from past literature on sustained rural development projects in Nigeria. This was

before carrying out the qualitative and quantitative studies to show how reality is continuously constructed by the social actors, which is a notion asserted by constructivism (Sutrisna, 2009).

5.2.2. AXIOLOGY

Value theory is a popular topic in ethics, economics, and several other disciplines. In philosophy, axiology is defined as the philosophy of value. As quoted by Douglas G. Block (date), "axiology" is widely described as the study of value. This definition should be expanded to include "value." (Douglas G.B, 1973). Silverman (2013) suggests that the axiology viewpoint puts into consideration the effect of people's influence on the data collation and analysis process (Silverman, 2013). Sexton (2003) segregates axiology into two: the value-free (unbiased judgment) or value-laden (biased judgment (Sexton, 2003). The biased philosophy holds a subjective posture. The non-biased philosophy is not influenced by value and allows for objective judgment.

In line with the philosophical standpoints that have been discussed in previous sections, this study adopted the value-free and the value-laden viewpoints in understanding the best practices for the planning, implementation and sustainability of rural sustainable projects in Nigeria through qualitative and quantitative methods. With all layers of philosophical theories discussed, the next section will correspond to addressing the research approach which satisfies the philosophical standpoints identified in this section this research.

5.3. RESEARCH APPROACH

According to literature, the research approaches are inductive, deductive, and abductive (Nasrun & Nawi, 2015). The deductive approach formulates hypotheses upon past research or theories and sets up a method to test these formulated hypotheses using a level of probability (Snieder & Larner, 2012; Silverman, 2013). This approach set the ground for quantitative approaches which tests probability using the generally accepted 95% confidence level (Melvin Couey & Chew, 1986). Hence, this is a good layer to build on the selected research philosophies. In addition to this, the deductive research approach allows inference to be made from a general population to a specific population. The deductive approach employed in the study involved testing theories and strategies related to rural development projects that were

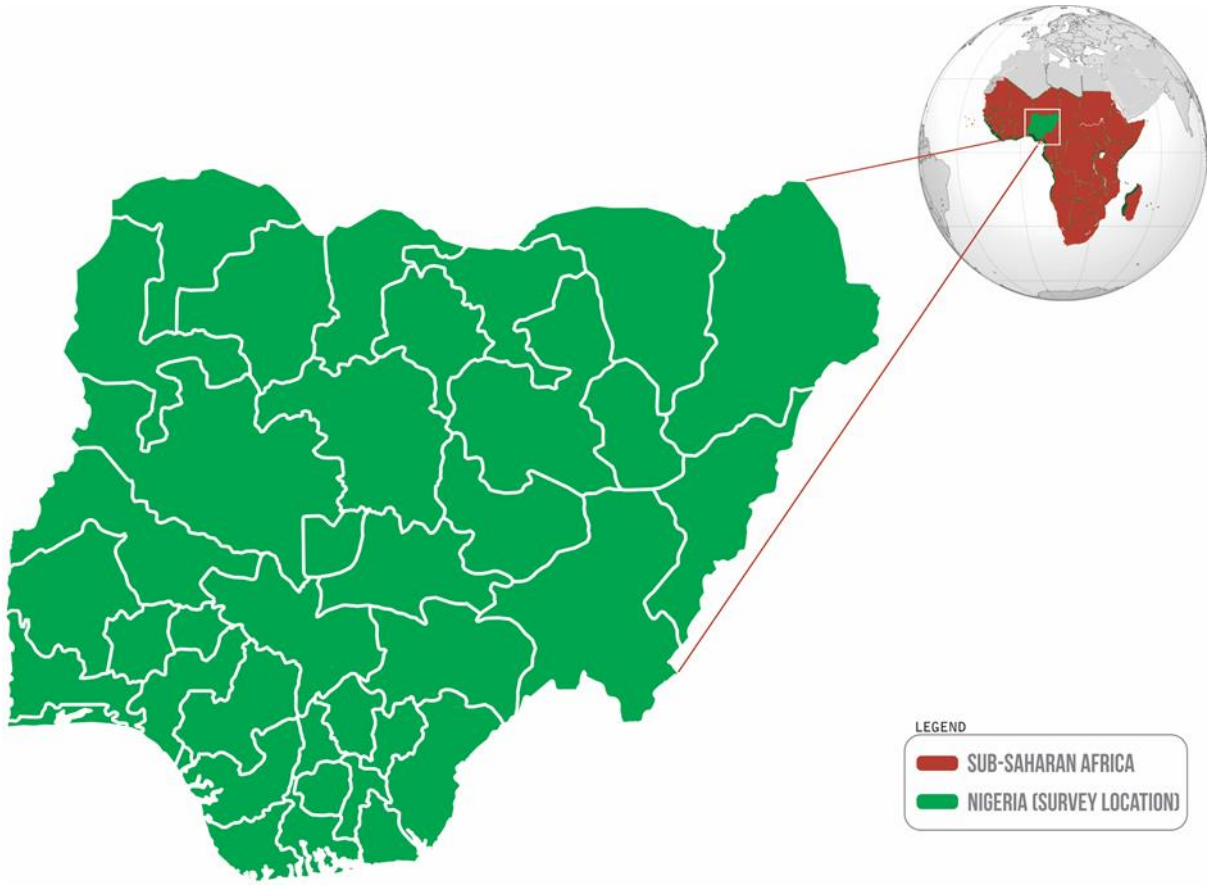
discussed in the literature review. Inductive approach involves generating a new theory from collected data (Bryman and Bell 2015). Induction in this study was utilized by developing an integrative framework and CMM, from the qualitative and quantitative study, for the planning and implementation of sustainable rural development projects in Nigeria. Abduction involves moving back and forth with data and theory by combining induction and deduction. Abduction relates to the exploration of a phenomenon, identification of themes, location of the themes in a conceptual framework, and testing the framework through subsequent data collection, by generalizing from the interactions between the specific and the general (Sachdeva 2009). The research approach for this research was therefore abduction, by combining both inductive and deductive approaches.

5.4. RESEARCH STRATEGY

According to Saunders et al. (2009), there are different types of research strategies such as case studies, experiments, action research, archival research, and grounded theory etc. Experimental involves investigating the impact of variables, establishing whether these variables provide better results and confirming if these results prove a theory (Ross and Morrison 2004). Archival research is based on historical documents and grounded theory involves theories that are not existing (Hakim 2000). A case study is an intensive study about a unit, which is aimed to generalize over several units (Sahay, 2016). This study uses the case study approach by collecting data from the six geo-political zones in Nigeria, to represent the diverse population of Nigeria. Using these zones as a representative locale for data collection illustrates cultural diversity and thus can be applied to other SSA countries because they exhibit the same socio-economic characteristics. Along the same line, Nigeria was selected for this research because the country embodies the varying characteristics of Sub-Saharan African countries. The parameters for the case study are further explained in section 5.5.2.2.

The map in figure 5.2 shows the geographical scope of the research:

Figure 5. 2: Map of Nigeria in Sub-Saharan Africa



5.4.1 RESEARCH CHOICES

To meet the overall objective of developing an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects, the study adopted a mixed method approach, consisting of qualitative and quantitative strategies of inquiry, data collection methods and analytical tools. The qualitative data was collected before quantitative data. The rationale behind this was to explore the research questions broadly through qualitative methods, then, to follow up on this exploration with quantitative data so as to test key variables with a larger sample set so that the results can be applied to a population. Other reasons for utilizing the mixed methods research approach for this research include the following:

- The mixed methods research allows for the expression of varying views. It allows for the answering of fact-finding and validating questions (Schulenberg, 2007)

- The mixed-methods approach measures similar and different characteristics of a subject, producing an enriched, comprehensive understanding of the subject. (Greene. Et al, 1989).

5.5. RESEARCH TECHNIQUES AND PROCEDURE

This section describes the process of data collection and analysis for the research. As explained earlier, through the mixed method approach, qualitative and quantitative data were collected. Data collection for this research can also be broken into primary and secondary data. Primary data collection was done using questionnaires, and interviews. All primary data collection requires the informed consent of the participants. Primary data give the researcher absolute control of collating information and focus attention to details on the research questions (Cooper and Schindler, 2008). This section gives further explanation of the methods of primary data utilized.

5.5.1. QUALITATIVE RESEARCH METHOD

It pays attention to the "why" rather than the "what" of social events (Saunders, et al., 2012). Qualitative research depends on the direct experiences of human beings in arriving at a conclusion. Hence this research approach was applied to this study. Atkinson (2014) suggests that people have different opinions about social reality, which may result in diverse interpretation of social reality. Hence, one of the reasons for opting for the qualitative method of data collection was to create an opportunity for respondents to open additional topics, which were not initially considered in the literature review. This helped in the development of an integrative framework for sustainable rural development projects.

5.5.1.1. Qualitative Data Collection

Based on the findings from the literature and a rapid stakeholders mapping conducted, stakeholders involved in the rural development projects include the following groups:

- Government Officials and Ministries Department Agencies (MDAs)
- Donor agencies
- Contractors

- Community Based Organizations
- Non-Governmental Organizations
- Standards Organizations
- Women and Youth Groups
- Community leaders
- Religious and traditional leaders
- Direct beneficiaries such as community members

The key informants were purposefully selected from the list above for the interviews because they were in the best position to provide adequate responses.

5.5.1.2. Sampling method

There are two major types of sampling – probability sampling and non-probability sampling. The non-probability sampling method by Saunders et al. (2009) is a method in which not all members of the population have equal chances of participating in the research. Probability sampling on the other hand, allows an equal opportunity for all members of the population to participate in the study (Collis and Hussey 2013). Purposive/judgemental sampling is a type of non-probability sampling and it was used for the qualitative study.

Purposive sampling focuses on particular characteristics of a population, and was therefore used for the qualitative study because the target population (i.e. stakeholders of rural development projects in Nigeria) were already known (Saunders et al. 2012). This method was easier to use as it allowed for a smaller sample size to be used compared to the size that would have been gotten should probability sampling techniques have been utilized. Thus the interviews were purposefully conducted with fourteen key informants drawn from the list of stakeholders described in the literature due to accessibility and availability of these persons for the study.

The distribution of Key Informant Interviews (KIIs) is shown in table 5.2 below:

Table 5. 2: Sampling distribution of stakeholders for KIIs

S.No.	Key Informant (Stakeholders)	No. Of Interviews
1.	Government Official (MDA representatives)	3
2.	Contractors	2

3.	INGO representatives	2
4.	LNGO representative	1
5.	Women's Group Leader	1
6.	Youth Group Leader	1
7.	Religious Leader	1
8.	Traditional Leader	1
9.	Community Members	2
	Total	**14**

5.5.1.3. Key Informant Interviews

Interviews could be structured, unstructured, or semi structured; telephone, or in person; videotaped, or audio taped, and individual, group, or focus group (Creswell, 2009). During an interview, the interviewees are asked questions pertinent to the research. Semi structured interviews allow the collection of rich and detailed data with predetermined questions but allowing follow up questions during the research (Collis and Hussey, 2013). Due to logistics and geographical constraints, it might sometimes be necessary to conduct interviews over the phone, which in no way reduces the quality of information gathered through interviews. However, it may be more difficult to create a personal connection with the interviewees.

For this study, semi-structured Key Informant Interviews were used to derive answers to the research questions. An interview guide was followed, but respondents could follow topical trajectories in the conversation that strayed from the guide when respondents gave their responses (Maxwell & Reybold, 2015). The guide for the interviews can be found in appendix one of the thesis. Also, it was possible to tape the interviews to be transcribed for analysis.

5.5.1.4. Qualitative Data Analysis

There are four major methods of qualitative analysis. They include: content analysis, grounded theory, comparative analysis and discourse analysis (Berelson 1952). While discourse analysis is based on speech (i.e. how and why people talk), comparative analysis contrasts data from different people (Hidalgo, 2011). Content analysis is a descriptive approach used to explore large amount of textual information, and grounded theory is used in deriving theories and

concepts from meanings within a data (Cho and Lee, 2014). These methods are further explained in table 5.3 below:

Table 5. 3: Qualitative method of analysis and approaches

S.No	Qualitative Method of analysis	Approach
1	Content analysis	Content analysis is a descriptive approach systematically coding and categorizing approach used for exploring large amounts of textual information unobtrusively to determine trends and patterns of words used, their frequency, their relationships, and the structures and discourses of communication
2	Comparative analysis	closely connected to the thematic analysis however in these case data from different people are contrasted until no further or new issue arise
3	Discourse analysis	Based on speech- how people talk what has made them talk. Speech is analysed as performance rather than the state of the mind.
4	Grounded theory	analytical procedures involve the coding and categorization of data collected with the aim of deriving concepts and theories from meanings within a data.

Source: Saunders, et al. (2012).

The qualitative method of analysis applied in this study was the content analysis. It involved segmenting the interview scripts, developing coding categories and generating categories, themes or patterns (Saunders, et al. 2012). Content analysis enabled the researcher to make inferences by objectively and systematically identifying specified characteristics in the interview scripts. It involved systematically coding the interview scripts into categories (Elo et al, 2014). The interview transcripts were reviewed and key themes that emerged during the interviews identified. Content analysis was adopted in this study because due to the exploratory nature of this research, content analysis has proven efficient in interpreting open-ended items in interviews or questionnaires (Berelson, 1952).

The tape- recorded interviews were transcribed verbatim by the researcher. After the transcription, it was read over severally to recognize patterns or themes and to generate codes. The scripts were coded: Planning, Implementation, Planning Practices, Planning/ Implementation known standards, Project life cycle, Contributions of the Planning and implementation, Sustainability upholder at implementation, Gap, Major Stakeholders,

Stakeholders participation, Sustainability. The respondents were numbered from R1 to R14, for reference and identification purposes.

5.5.2. QUANTITATIVE METHOD

This method relies on statistics and numerical analysis in arriving at study findings (Kabir, 2016). To obtain the study's research findings using the quantitative method, implementers and beneficiaries of rural development projects were assessed using structured questionnaires. The quantitative approach was selected because it can test a hypothesis, however, it may miss contextual information (Saunders et al. 2016). Other reasons for selecting the quantitative method are explained in section 5.4.

5.5.2.1. Sample Size

In determining the appropriate sample size for the survey (quantitative) aspect of the study, several factors were considered such as the size of the population, the error margin and the confidence level. For this survey, a confidence level of 95% was utilized in line with known standards. Accordingly, the Cochran formula allows for the calculation of an appropriate sample size especially in situations with large populations. The Cochran formula is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

- n is sample size estimated
- e is the desired level of precision (i.e. the margin of error),
- p is the (estimated) proportion of the population which has the attribute in question,
- q Is 1 – p.
- Z is the selected critical value of desired confidence level (Cochran, 1963).

The sampling formula yielded 384 respondents, however, to control possible methodological errors or biases, if the sample size is increased by approximately 5% of the total calculated number, the total sample size equals 400 respondents for the quantitative survey. Nonetheless, a total of 404 respondents were reached.

5.5.2.2. Population

Representing the six geopolitical zones in Nigeria, study respondents (i.e. stakeholders of rural development projects, as listed in 5.5.1.1) for the quantitative study were selected from Nasarawa State (North Central), Ogun State (South West), Bayelsa State (South-South), Imo State (South East), Kaduna State (North West) and Borno State (North East) (Akombi, Agho, Merom, Hall, & Renzaho, 2017). These states were randomly selected to account for the effect of regions on study finding and to get a fair representation of all the rural regions of Nigeria. The respondents consisted of the same list of stakeholders from the Key Informant Interviews, but due to the random sampling technique employed, majority of the respondents were beneficiaries (community members) and they were considered suitable to have necessary information to drive this research. This is because they are the end users of development projects in Nigeria's rural areas.

The random sampling technique ensured flexibility in identifying participants, and provided scope to pursue participants who were usually located in remote areas. To make the distribution of the sample size proportionate to the population of each state, we employed the formula below:

$$\text{No. of respondents per state} = \frac{\text{Population in each state}}{\text{Total population of the 6 states}} \times (400)$$

Table 5. 4: States, total population and sample size

States	Total Population[1]	Sample Size
Imo	4,228,761	51
Bayelsa	1,099,952	13
Borno	5,576,313	68
Kaduna	8,620,189	105
Nasarawa	3,834,118	47
Ogun	9,506,520	116
Total	32,865,853	400

[11]Source: https://nga.geopode.world/population/Ward?s=BR,YO&l=105,116,119,703,707,714&gender=MF&from=0

5.5.2.3. Structured Questionnaire & Administration:

The quantitative method involved the administration of structured questionnaires to stakeholders of rural development projects in the selected geopolitical zones (Naderifar et al, 2017). The structured questionnaires were developed to capture the identity, background information of respondents in relation to the research questions and different areas of interest. Data from the quantitative survey were reviewed to assess its contribution to the key research questions.

The questionnaires were developed based on the literature & findings from the qualitative study and were first tested for relevance, reliability and understanding by select respondents through a pre-test. The questions have followed the five principles of designing questions, stated by Easterby-Smith et al., (2012) these are: "Each question should express only one idea, Avoid jargon (expressions) and colloquialisms (informal expressions), Using simple phrases, Avoid the use of negatives and Avoid leading questions." The questionnaires were subsequently modified to ensure that the respondents understood the criteria for the rank-scales to be selected when assessing the questions. Validity of the instruments was also ensured by following the criteria for selection of respondents, as discussed in the methodology.

A brief description of the research focus was attached to each questionnaire. The targeted sample for this research were all stakeholders involved in rural development projects, as explained in other chapters of this research. In general, the questionnaire was divided into six main parts; with the first part being an introduction. The main parts of the research are explained as follows:

1) **Demographic Information:**

Respondents' demographics describe the location, gender, age and category of the respondents. Data from the quantitative survey were collected from six states (Bayelsa, Borno, Imo, Kaduna, Nasarawa, and Ogun state), with each state representing the six geo-political zones of Nigeria. The respondents of the survey were community leaders, religious leaders, civil society organizations (CSO), and community members.

2) **Respondents' involvement in rural development projects**

This section aims to understand the respondents' involvement in rural development projects

(these projects include projects on education, water and sanitation, road construction, agriculture, electricity and health care), by asking questions regarding awareness, consultation, input and involvement in decision making, in order to attain frequency. Eliciting responses on the involvement of respondents were aimed at elaborating on the planning and implementation practices.

3) Planning and Implementation practices

In this section, the questions were centered on the strategies/approaches to rural development projects that are more prevalent in their communities and that which they consider more effective. The respondents were also asked about questions on the challenges that hinder the sustainability of development projects and the factors that promote sustainable rural development projects. The result of these questions was thought to be useful in meeting objective two on planning and implementation practices, as well as developing the framework.

4) Stakeholders Interest

This part of the survey focused on measuring the roles played by stakeholders in rural development projects, as stated in the qualitative findings, in order to assess the respective impacts of stakeholders' participation, and to assess those responsible for the failure and successes of rural development projects.

5) Analyzing Rural Development Project Failure

Beginning with an explanation that a project is considered a failure when it has not delivered what was required, in line with expectations, especially when it fails to meet the needs of its beneficiaries, the respondents were asked questions about the completion status of the development projects in the communities, and the factors that result to the failure of development projects. These questions were asked to meet objective 4 (inclusion and sustainability practices of rural-based projects).

6) Towards Sustainability of Rural Development Projects

As suggestions were made on ways to ensure sustainability of rural development projects, the respondents were asked if the projects in their communities can be sustained and the probability of this being achieved. All the questions asked in the questionnaire were useful in formulating an integrative framework and capability maturity model to enhance the sustainability of rural development projects.

5.5.2.3. Quantitative Data Analysis

Quantitative data is used for analysis such as descriptive and inferential statistics to draw conclusions about the data collected from the population (Saunders et al. 2016). Descriptive analysis is based on the measure of central tendency and distributions and used to describe the data collected. The common types used are: Frequency, Percentages, Mean and Median standard deviation (Ali and Bhaskar, 2016). In this research the quantitative data was used to further analyze findings from the qualitative data. The qualitative data was mainly associated with categorical data and thus descriptive statistics using frequency and percentages was helpful in describing and presenting the findings. Inferential analysis was then applied in the interpretation of the questionnaire (Naderifar et al, 2017)

Ordinary Least Square (OLS) regression was used in estimating the relationship and impact of the following variables on rural development project sustainability:

- Top-down approach to rural development
- Appropriate technology
- Appropriateness of a project
- Stakeholder engagement
- Community acceptance

The P-values from the Analysis of variance were used in testing the hypothesis. With rural development project's sustainability as the dependent variable across all models, the models estimated and tested are shown below:

$$SUSTAINABILITY = \alpha + \beta_{(Prevalent\ Approach\ (Top\text{-}down\ Approach))} + e$$

$$SUSTAINABILITY = \alpha + \beta_{(appropriate\ technology)} + e$$

$$SUSTAINABILITY = \alpha + \beta_{(appropriateness\ of\ a\ project)} + e$$

$$SUSTAINABILITY = \alpha + \beta_{(stakeholder\ engagement)} + e$$

$$SUSTAINABILITY = \alpha + \beta_{(community\ acceptance)} + e$$

These models were simple estimated to determine if the variables (top-down approach to rural development, appropriate technology, and appropriateness of a project, stakeholder engagement and community acceptance) have positive or native impacts on rural development projects' sustainability. The researcher used Statistical Package for the Social Sciences (SPSS 20) software to clean up data, MS Excel tables to present the statistics and draw the figures, and Eviews to run the OLS regressions. The results from the OLS regression are presented and analysed in chapter seven.

5.6. RELIABILITY AND VALIDITY

Validity is the core of any form of research or assessment that is exact and worthy of trust. It refers to the appropriateness of the inferences made about the results of an assessment. Inferences refer to the conclusions and deductions derived based on reasoning and evidence. On the other hand, a test is said to be reliable when it can be used by a number of different researchers under stable conditions, with consistent results and the results not varying (Bruin, 2011). In order to determine the ability of the data collection tools to produce consistent results, reliability test was conducted on the questionnaires for this research. Bryman and Bell (2007) highlighted the 3 common methods in measuring the reliability of a research instrument, which are stability (test-retest method) inter-observer consistency, and internal reliability (Cronbach's alpha).

The stability test for reliability requires the same questionnaire instrument to be administered twice to the respondents, and data from each time it is administered were then correlated in order to determine the reliability of the instrument. However, this method has some criticism in which the time interval can influence the likelihood that the respondents will answer in the same manner, thus going against the purpose of stability test (Saunders et al, 2009; Bryman and Bell, 2007). The second method available for reliability testing is inter-observer consistency. Anderson, (2010) noted that this test is necessary to determine whether two observers are being consistent in their observations. Bryman and Bell (2007) also noted that this test is crucial for studies with more than one observer which data collection requires highly subjective judgments that affects coding and categorizing of data in the analysis stage. As the author is the sole observer and researcher for this study, this test is then not applicable for quantitative reliability testing.

Cronbach's alpha determines the internal consistency or average correlation of items in a questionnaire to gauge its reliability and results in a value in between 0 which means no correlation, therefore no internal consistency; and 1.0 for perfect correlation, hence complete internal consistency (Saunders et al, 2009). Cronbach's alpha reliability test was run on the questionnaire in this research, and was conducted with the aid of excel. The table 5.5 below shows the reliability test conducted on excel:

Table 5.5: Reliability test

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	699.7376	403	1.736322	3.474265	8.64E-75	1.131947
Columns	1471.97	5	294.3941	589.0631	0	2.218538
Error	1007.03	2015	0.499767			
Total	3178.738	2423				
	Cronbach's alpha		0.712169			

The Cronbach's alpha value obtained in excel for this research was 0.712169 as shown in Table 4.5 above. Values of Cronbach's alpha between 0.7-0.8 are commonly accepted for indicating good reliability of an instrument (Field, 2009). The value 0.712169 shows that the results produced from the analysis of this questionnaire are trustworthy, repeatable, dependable and reliable to an acceptable extent.

In addressing the validity for a quantitative instrument, various methods exist which includes; content validity, construct validity and criterion validity (Saunders et al, 2009; Creswell and Plano Clark, 2011). Content validity is established through the judgment of the external experts whether the items or questions are representative of the construct investigated (Creswell and Plano Clark, 2011). To ensure that the questionnaire instrument generated in this research measured what it was supposed to, the questionnaires was reviewed by a panel comprising of development practitioners drawn from the public sector and the international development space with multi-sectoral and multi-country experience prior to the data collection stage, to evaluate the content validity of the instrument. Experts were asked specifically to review each of the items according to how the item represented the enabling factors in content, and whether they think the Likert scale assigned was applicable to each item in meaning.

The comments and concerns raised by this panel of experts during this review process were acknowledged and incorporated to improve the questionnaire instrument for use in data collection stage. Miller (2012) suggested that for an instrument to be valid it has to be reliable but must also measure what it is intended to measure. Considering that the instrument used in this research has scored a satisfactory reliability measure of Cronbach $\alpha = 0.712169$ and have

gone through the process of experts' review, the questionnaires used in this research can be regarded as valid instruments.

5.7. RESEARCH ETHICS

The study followed ethical procedures in ensuring confidentiality, data protection and informed consent of the interviewees. The respondents were provided information about the project and the purpose of the research. The participant information sheet explained to them why they were the sample chosen, and the fact that participation was voluntary. They were informed that the interviews only required their opinions on questions asked, and the only possible risks associated with the study was data insecurity. It was made clear that there were measures to mitigate the identified risks, as data was stored on a personal online database and deleted after use. Furthermore, the benefits of the study to them as individuals and the organisations they worked for were described, and they were informed on their ability to withdraw from the study at their convenience. The researchers contact was provided, allowing the interviewees make complaints or enquiries regarding the study if necessary.

The interviewees were informed on what the results of the study were used for, which was to develop an integrative framework and capability model for sustainable rural development projects in Nigeria. Based on the information provided to the interviewees, they confirmed that they understood what the study entailed and their freedom to withdraw. These participants gave their consent to take part in the study, and for their information to be used, and to be recorded as part of the study. A sample of the informed consent form can be seen in appendix 2, and a sample of the participant information sheet can be found in appendix 3 as well.

Other ethical standards were observed to ensure that the research procedure was professionally and successfully executed. They include:

- Respect for gender and cultural sensitivities of researched communities;
- Observation of confidentiality and privacy of the respondents' information;
- Respect for the right of the respondents to voluntarily participate in the survey;
- Prior permission before interviewing the respondents and
- Commitment to using the data collected strictly for the purpose of the research.

In addition to these, ethical approval was sought and received from the University ethics committee.

5.8. SUMMARY

The chapter described the methods used in achieving the research aim and objectives and answering the research questions. The research philosophy was Post-Positivist (combination of Positivism/Objectivism and Interpretivism/Constructivism). The research approach to theory development was abductive and the research also adopts sequential mixed research methods, a combination of quantitative and qualitative in multiple phases. The research design was sequential mixed. Data was collected from primary and secondary sources using literature review, questionnaires and interviews from stakeholders. Data was analyzed using qualitative methods of analysis such as Content Analysis. Quantitative methods of analysis including frequency tables were employed in analyzing the quantitative data. Using the methods identified in this chapter, the next chapter presents the qualitative results, to aid in achieving research objectives two, three and four.

CHAPTER SIX: RESULTS FROM QUALITATIVE STUDY

6. INTRODUCTION

The aim of this chapter is to present and discuss the findings from the qualitative study. As explained in the previous chapter, the qualitative data was collected through key informant interviews, and the data collected were analysed using the content analysis technique. The chapter begins by presenting the findings in a tabular format, then goes on to explain the findings based on the presented codes. An in-depth discussion of the results is included within this chapter. The chapter concludes by highlighting the key findings in the summary section.

6.1. QUALITATIVE DATA ANALYSIS

The results from the interviews completed by 14 respondents (represented by R1 to R15 in the table below) are presented in this section. The key issues and programmatic aspects for discussions, during the interviews included topics around the following objectives:

- To understand the planning and implementation practices obtainable in rural development projects.
- Identifying the different stakeholders in rural development and how their roles ensure project success.
- Determining the design, planning, monitoring and evaluation, implementation practices that promote sustainable rural development projects
- To determine the root causes of rural project failure and also the development of a mitigation plan.

The respondents consisted of key informants from the state and federal government, MDAs, donor agencies, contractors, CBOs, NGOs, omen and youth groups, community/traditional leaders, and religious. The findings that emerged from the qualitative analysis are shown in table 6.1 below:

Table 6. 1: Coding data showing the findings from the qualitative analysis

Codes	**Respondents**	**Comments**	**Common Measures/themes**
Planning	R1	*"Planning refers to the steps taken to actualize a project"*	- Actions to actualize projects
	R2	*"It is the stage when needs assessment is carried out, community consultation is done and the needs re prioritized"*	- Needs Assessment
	R4	*"Planning is the setting out of goals that need to be achieved"*	- Goals set forth for achievement
Implementation	R7	*"Implementation is the actualization of a project design."*	- Actualization of project plan
	R10	*"Implementation measures that the monitoring is carried out with specification and the community is included."*	- Measures monitoring
	R3	"*Implementation is the execution of the plans given a set of goals as well as putting in the variables that will achieve the target."*	- Execution of plans
Planning Practices	R5	*"Planning practices obtainable in rural development include Community engagement, Community mobilization, Community based activities, Participatory rural assessment (matrix is developed to rank needs). These tools are utilized to understand the need and sensitivity of the people before implementing a design"*	- Community Engagement
	R8	*"Community development planning approach (dialogue, wider*	- Community Engagement

		consultation)"	
Planning/ Implementation known standards	R11	*"I am aware of the WHO standards for water and sanitation in the implementation of rural development projects that categorize the project outcome as proper and safe."*	- WHO standards
	R4	*"No"*	- Not aware
	R5	*"No"*	- Not aware
Project life cycle	R6	*"Inception, planning, implementation and monitoring, Evaluation. I believe that monitoring is a continuous process that is experienced throughout the phases of the project life cycle"*	- Inception. - Planning. - Implementation - Monitoring & Evaluation
	R11	*"It depends on the project, the personnel and funding"*	- Varies
	R3	*"Planning, implementation, M&E, Impact assessment"*	- Planning. - Implementation. - Monitoring & Evaluation
Contributions of the Planning and implementation	R10	*"It has an impact on the sustainability of the project. Planning and implementation are key stages that influence the success of the project."*	- Project Success/Sustainability
	R14	*"It is the key to any project outcome; all steps should be followed to achieve project outcome in real time."*	- Project outcome
	R2	*"It is very crucial and essential, measures are implemented effectively and timely."*	- Essential
Factors that promote sustainable	R4	*"Appropriate technology: In a rural community a high technology water plant will not be appropriate because*	- Appropriate technology. - Capacity building

rural development projects at the implementation stage		*of the lack of technical-know-how for maintenance processes, Capacity building will promote project sustainability."*	
	R9	*"Acceptance from the community, it must meet the needs of the community and support should be provided"*	- Acceptance. - Capacity building
	R13	*"Inclusion of all stakeholders, citizen engagement, local authorities"*	- Stakeholder inclusion
Gaps	R4	*"Yes, implementers and policy maker are holding dissimilar perspectives, lack of job satisfaction, cutting corners"*	- Lack of consensus. - Weak monitoring and evaluation
	R7	*"Yes, non-involvement of key stakeholders at the planning stage, politicization of the process and lack of baseline"*	- Lack of stakeholder involvement. - Weak monitoring and evaluation system
	R4	*"No"*	- Not aware
	R8	*"The community think that maintenance is the responsibility of the government. Secondly, sensitization is required for effective maintenance at the time the project is handed over to the community"*	- Community ownership - Sensitization
	R2	*"Gaps exist: Steps were not put into practice, there was no uniformity across reporting, no data on impact assessment, poor implementation and lack of baseline"*	- Poor implementation - Weak monitoring and evaluation
	R9	*"The gaps can be filled by Check and balance and Multi-stakeholder monitoring"*	- Checks and balances. - Monitoring

	R7	*"Everyone is responsible for bridging the identified gaps"*	- Everyone
	R8	*"Government and Public are responsible for bridging the identified gaps"*	- Government - Public
Major Stakeholders	R5	*"Users, Implementing agency, Government, Donors."*	- Beneficiaries, - Implementing agency. - Government, Donors
	R7	*"Political officers, Government, Donor agency, CSOs"*	- Political officers. - Government, Donor agency. - CSOs
	R11	*"Implementing Agency, community leaders, youths and women"*	- Implementing Agency. - Community leaders. - Youths and women
Stakeholders participation	R12	*"The users are most impacted by the project, the project will be managed by them, implementing agency works through NGO or Ministry of planning. NGO designs a program according to needs assessment, develop proposal, receive evaluation and carry out the project, and LGA needs to be carried along in the project development, the MDAs and LGA should be aware of the project as well as approve of it."*	- Users benefit and manage the projects - interconnection
	R11	*"Provision of funds, determination of the needs assessment of the community"*	- Funds - Needs assessment
	R9	*"Acceptance of community leaders is paramount, Women are the end users, they play a critical role in the*	- Youths leaders promote peace/sustainability

		community and Youth leaders promote peace and sustainability"	- Women are more end-users.
	R7	*"Yes, Sustainability impacts mostly on the community. The project continues to function when the community is involved in the maintenance of the project."*	- Community involvement promotes sustainability
Sustainability	R10	*"A project which continues to work over-time with all the steps duly integrated is referred to as sustainable."*	- Continuity
	R12	*"A sustainable project is one that can be seen, functional after the initiators have left"*	- Functional after project completion
	R9	*"A project that can be maintained by local authorities and community"*	- Can be maintained by community members
	R1	*"Yes, I was involved in the planning and implementation stages of the EU-Micro Planning and implementation according to EU standards. It was implemented through the National planning Commission. The local CBOs conducted a needs assessment, ranked the community needs and developed a proposal for the most pressing needs of the community. 30% of the fund was donated by the local NGO, 60% by the EU, 10% contribution from the community in form of unskilled labour. Items needed for the project can be sourced locally in that community.*	- Involved in planning and implementation of a sustainable rural development project - Multiple stakeholders

		Also, CBOs train identified persons with the necessary skill set for the maintenance of the project, e.g., training in repairs, book keeping, record keeping, etc."	
	R6	*"Yes, For youth empowerment, I was chairman of a planning committee. We conducted a needs assessment that indicated that young men needed to be trained in skill acquisition. Selected youths were trained according to their area of interest. We made negotiations to train them at a virtual training company. The program went on for two years, we ensured due monitoring during the period of implementation. The outcome was a success, because the young men have a means of sustainable livelihood now."*	- Involved in planning and implementation of a sustainable rural development project
	R9	*"For a project to be sustainable, all steps must be put in place. The following practices must be adopted. They are: Funds, Design, sound construction and acceptance.* *Design and planning- The appropriate technology that addresses the problem is identified through needs assessment. Use of community based activities, Participatory approach are effective in order to solve the problem.*	- Funds, planning, Design, monitoring, participant involvement and acceptance foster project sustainability

		Implementation- Construction must be sound so that the project does not fail. *Monitoring- It is a continuous process from design to implementation and evaluation. It is necessary to factor monitoring into all phases of the life cycle."*	
	R5	*"Acceptance of the project and Needs Assessment at the design stage. Planning stage- community engagement. Implementation stage- Motivation by implementers and inclusion of relevant stakeholders and M&E- Strict adherence to project specification"*	- Needs assessment, planning, community engagement, monitoring, participant involvement and acceptance at all stages foster project sustainability
	R9	*"Design consultation with stakeholders, Cost, Adherence to specification, M&E and Involvement of all stakeholders"*	- Design consultation with stakeholders. - Cost. - Adherence to specification. - M&E.
Project Failure	R11	*"A failed project is one that does not adopt the best practices in all the phases of development and does not function in terms of expected outcome."*	- Adopt best practices
	R12	*"A failed project is one that cannot meet up with set goals."*	- Meetup with set goals
	R15	*We worked on a 'Food for Peace' project a while ago in Maiduguri, Borno State. The aim of the project was*	

		to give food to different communities. There was this community named Bulabulin, where the community leaders complained that members of the community did not receive food assistance. It was found that this was as a result of conflict of interest, brought about by enumerators who were supposed to go house to house to collect data but ended up registering most of their relatives.	
	R1	*"the causes of rural development projects failure are inappropriate technology, failure to identify the needs of the community, Poor maintenance and lack of continuing support"*	- Inappropriate technology - Absence of needs assessment - Weak monitoring - Poor continuity support
	R10	*"Lack of sustainability plan from the design phase, Political influence"*	- Absence of sustainability plan - Political interference
Mitigation	R1	*"Project failure can be preventing by adopting the key elements of project sustainability: Motivation, Maintenance, Cost recovery, continuing support"*	- Elements of project sustainability
	R3	*"Needs assessment is a priority. Sustainability plan must be designed"*	- Need assessment - Sustainability plan

6.2. CONTENT ANALYSIS

The content analysis involved dividing the responses in codes, as seen in the table above. Content analysis was used with the aim of achieving a compressed and comprehensive description of the findings, through developing concepts and categories. According to Elo and Kyngas (2008), the objective of the concepts or categories is to build up a framework or model,

which the research aims to do. In this analysis, the categories for coding are derived from the data itself. The process was done manually, and began with organizing the qualitative data, which involves open coding, creating categories and abstraction (Vaismoradi et. al., 2013).

The table above is divided into four columns (codes, respondents, comments, and measures/themes). The first eight codes (planning, implementation, planning practices, planning/implementation known standards, project life cycle, contributions of the planning and implementation, sustainability upholder at implementation and gap) are set to meet the second objective i.e. to establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies systems, methodologies, processes and technologies involved. The next set of codes (major stakeholders and stakeholders' participation) were set based on the third objective (to identify and evaluate the roles of the different actors and stakeholders involved in project implementation). Finally, the codes (sustainability, project failure and mitigation) are to meet the fourth objective on evaluating the inclusion and sustainability practices of rural-based projects. The codes are further explained in appendix 1.

The codes serve as a structure for the interpretation of the results and are discussed in this section accordingly.

6.2.1. Planning

The key Informants were asked on their understanding of project planning for rural development. Most of the respondents knew what rural development project planning entailed. They generally explained planning as the process of setting out activities to achieve desired goals. One of the respondents, R1, stated that:

"*Planning refers to the steps taken to actualize a project, while implementation is the actualization of a project design*".

Literature supports this definition because planning is the first stage of a project life cycle, accompanied by a project design which is implemented to suit the end receivers (Arroz et al., 2018). There were three common measures/themes indicated by respondents in terms of project planning. These are: actions to actualize projects, needs assessment, and goals set forth for achievement. A needs assessment is a systematic process for determining the gaps between a

present situation and a desired one, it is also a systematic process of identifying the needs of (end-users) in order to address these needs (WHO, 2020). On the other hand, goals are what a project aims to achieve. It is important to note the responses from respondent R2, R5, and R8 who stated the following respectively:

"Planning is the stage when needs assessment is carried out, community consultation is done, and the needs are prioritized"

"Planning practices obtainable in rural development include Community engagement, Community mobilization, Community based activities, Participatory rural assessment (matrix is developed to rank needs). These tools are utilized to understand the need and sensitivity of the people before implementing a design"

"Community development planning approach (dialogue, wider consultation)"

Based on the responses, among others, community consultation and community engagement were recurring themes in rural development project planning, from the interviews. These responses showed the importance of community consultation and prioritization of the needs of the end users in the planning stage of the project. The third response stated by respondent R4 states that "*Planning is the setting out of goals that need to be achieved".*

These three themes are similar in the sense that needs assessment and setting of goals are both important actions that need to be taken to actualize a project. From these definitions, which also summarize the viewpoint of other respondents, it can be deduced that in the planning stage of a project a needs assessment done through community consultation should also be carried out prior to establishment and actualization of the goals of the project.

6.2.2. Planning Practices

The next question asked to the respondents was on the type of planning and practices in rural development that they are aware of. Some of the common responses given on practices obtainable in sustainable rural development projects were: community based activities such as community engagement, community mobilization, participatory rural assessment and the use of a community development planning approach. These community-based practices involve

working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues and to understand the need and sensitivity of the people before implementing a design. This response from the respondent is supported by a study by Tantoh & Simatele, (2017) and other literature which showed that engaging community members at some level or all levels of project implementation, increases the chances of project success. To buttress this point, the following is a statement made by a respondent (R1) on best practices in rural development project planning:

"I was involved in the planning and implementation stages of an EU funded rural project in Nigeria, which was implemented according to EU standards. It was implemented through the National planning Commission. The local CBOs conducted a needs assessment, ranked the community needs and developed a proposal for the most pressing needs of the community. 30% of the fund was donated by the local NGO, 60% by the EU, 10% contribution from the community in form of unskilled labour. Items needed for the project were sourced locally in that community."

According to a respondent, in Nigeria, a participatory rural assessment tool, (in the form of a matrix developed to rank needs) is known to be used to understand the needs and sensitivity of people/community before implementing a design. Another noted approach in Nigeria is 'wider consultation. This approach goes beyond consulting only end-users and project implementers. In this case a lot of research is carried out to understand how previous similar projects have been implemented. It also entails carrying out a stakeholder analysis in the planning phase to adequately identify and consult these stakeholders, as little or as big as their roles might be in project implementation. A stakeholder analysis allows to map out and establish the appropriate level of communication and consultation with stakeholders' relative to their influence and interest in the project (Prell, Hubacek and Reed, 2009).

6.2.3. Implementation

The respondents defined implementation as putting the plan and design into effect. A respondent (R10), indicated that:

"Implementation measures that the monitoring is carried out with specification and the community is included."

There were two noteworthy phrases from the first definition. They are ‘monitoring is carried out with specification’ and ‘community is included’. The first phrase agrees with the literature which states a project is said to be triumphantly implemented if deadlines are met, the budget is not over-scaled, the set goals are met, and the overall intervention is useful and recognized as useful by beneficiaries (Shahzadi, 2019). This definition would not be true if the execution of the project plan is not monitored with specification. In other words, project monitoring should also be carried out during the implementation of a project.

6.2.4. Known standards for planning and implementation

Many of the respondents did not respond to the question on the benchmark for the planning and implementation of rural development projects, because they were not aware of any. However, one of the respondents stated the “World Health Organization (WHO) standards for water and sanitation in the implementation of rural development projects” as the only benchmark for planning and implementation known and implemented. The benchmark is effectively used in categorizing the safeness and appropriateness of WASH project outcomes. Nevertheless, stakeholders’ lack of knowledge on benchmarks for planning and implementation of rural development projects indicates the need for sensitization of rural development projects stakeholders, especially implementers on the required benchmark to ensure project success and sustainability.

6.2.5. Project life cycle

Based on their understanding, respondents were asked to describe the development project life cycle. A consistent response from respondents on the life cycle of rural development projects were Planning, Implementation and Monitoring and Evaluation. Respondents indicated the necessity for needs assessment during the planning phase. This view is in line with the literature by The Food and Agricultural Organization of the United Nation (FAO), which included identification as the first stage, which is more like the need assessment in the community (FAO, 2014). Thus, needs assessment was identified as crucial in the inception phase of every project.

Beyond the implementation stage, monitoring, evaluation and impact assessments were found

to be crucial throughout a project's life cycle. A respondent stated the following:

"I believe that monitoring is a continuous process that is experienced throughout the phases of the project life cycle".

6.2.6. Contributions of the Planning and implementation stages to the project life cycle

As a follow up question, the key informants were asked to describe the contributions of the planning and implementation stages to the project life cycle. The planning and implementation stage were considered crucial for project outcome, project success, and sustainability of the project.

One of the respondents stated: "*Project Planning and Implementation is the key to any project outcome; all steps should be followed to achieve project outcome in real time*."

Most of the respondents suggested that this stage has the propensity to impact on the project sustainability. This position was supported by a literature review carried out by Aarseth et al. (2017), which observed that for a rural development project to be sustained, every part of the project life cycle has to be laced with a sustainability plan (Aarseth et al., 2017). What this suggests is that for a rural development project to be successful, conscious efforts (such as resource mobilization, and proper planning and implementation) must be made at all stages to drive project sustainability. Project sustainability is the stage that accounts for the resources necessary to continue activities in the medium and long term, once the project has ended. (ILO, 2010).

6.2.7. Gaps

According to some of the respondents, there are several gaps observed, which exist in the planning and implementation stages of rural development projects in Nigeria. According to respondents, these gaps have been evident in many projects, and they occur as a result of poor communication among stakeholder, selfish interests on implementers and incompetence. The gaps are highlighted below:

- Lack of unity amongst project implementers, which can lead to delays in decision making and hitches in the implementation of the project design.

- Corruption which has led to the failure of many projects through the embezzlement of funds and the contracting of projects to personnel who lack the technical know-how.

- Non-involvement of key stakeholders at the design stage which often leads to the project not meeting the needs of the end-users.

- Poor monitoring and evaluation in the design, implementation and monitoring and evaluation stage.

- poor implementation of projects and lack of standard reporting

These findings are in line with a study by Taiwo & Agwu (2016) who examined the reasons for the failed projects in Nigeria over the years, and found that they include: a weak monitoring system, poor financial allocations for the project, and corruption. By deduction, the consequence of the highlighted gaps are the production of sub-standard rural development projects, project failure, and the inability to sustain the project after execution (National Commission Planning, 2010) similarly, it was deduced in the literature review that many rural construction projects in Nigeria are carried out using substandard construction materials (Adebowale, 2014;) and this was confirmed by some of the respondents.

According to respondents, the Government and every other stakeholder in rural development projects should be responsible for bridging the identified gaps. Other crucial methods to bridge these gaps, as confirmed by the respondents include:

- 'Checks and balances' which are procedures put in place to combat and prevent mistakes and errors that could occur during a project life cycle.
- Multi-stakeholder monitoring, which entails monitoring the interests and roles of stakeholders through proper communication

6.2.8. Factors That Promote Sustainable Rural Development Projects at the Implementation Stage

The respondents also suggested the factors that promote sustainable rural development projects at the implementation stage are the use of appropriate technology, that is, technology that can be maintained by project beneficiaries, including community dwellers. Appropriate technology

varies across the kind of project. A respondent stated that:

"In a rural community a high technology water plant will not be appropriate because of the lack of technical-know-how for maintenance processes".

Capacity building of stakeholders such as project implementers, through training and sensitization was also suggested to promote sustainable rural development projects. Capacity building through trainings and other means are important at every stage of a development project to ensure improvements (de Weger et al, 2018).On highlighting the importance of capacity building, a respondent stated that:

" ...Also, CBOs train identified persons with the necessary skill set for the maintenance of the project, for example, training in repairs, book keeping, record keeping, etc."

The respondents indicated that the rural development project proffered must be accepted by community members since they are the end users. This should be done through community engagement and needs assessments, which have been discussed in previous sections. A respondent stated that community engagement can be done through developing committees in the local communities where people can gather to have meeting on the maintenance of projects and similar issues. This position was supported by Liu & Li (2017), which suggested the importance of allowing rural dwellers to have a sense of ownership of projects and its impact on rural project intervention.

In addition to this, stakeholder inclusion through meetings and engagements was indicated by respondents as one of the factors that promote sustainable rural development projects, as each stakeholders' role is important. Literature has also shown the importance of stakeholder involvement in eliciting sustainable rural development projects. An instance is seen in the works of Eskerod & Huemann (2013) who state that "for rural development projects to be sustainable over time, stakeholders have to be properly prioritized and well managed". Hence, the responses given by respondents are not surprising.

6.2.9. Major stakeholders in rural development (project planning and implementation

The respondents stated beneficiaries, implementing agencies, Government, donors, political

officers, and youth and community leaders as the known stakeholders in rural development projects. Specifically, a respondent (R1), stated the following on why some of these are the main stakeholders of rural development projects:

"The community are the end users, the projects cannot be utilized without them; Contractors implement the projects according to the design; Central and Local government provide support either through counterpart funding; and International organizations provide funds, accountability and good press"

A general description of the interests of stakeholders, as given by respondents are:

- Beneficiaries are impacted positively or negatively by the projects.
- Non-governmental organizations, Government Ministries, Departments and Agencies (MDAs) design and implement the projects.
- MDAs also regulate activities on rural development projects by giving approval, funds, and undertaking needs assessment in communities.
- Youth and Community leaders are influential stakeholders because they promote peace, sustainability, and acceptance of community through their leadership roles, as concerning the project.

The study carried out by Usadolo & Caldwel (2016) supports these findings. The study discussed the stakeholders listed above in a similar light and showed that stakeholders play varying roles in ensuring a successful rural development project. Respondents also stated that these are some of the roles played by stakeholders to ensure rural project sustainability:

6.2.10. Stakeholders' Participation

The list of stakeholders and their participation/corresponding roles in rural development projects, according to respondents are described in table 6.2 below:

Table 6. 2: List of stakeholders and their corresponding roles

LIST OF STAKEHOLDERS IN RURAL DEVELOPMENT PROJECTS	**CORRESPONDING ROLES**
Central and local government	- Formulation and implementation of policies and strategies to facilitate rural development projects. - Provision of funds. For instance, a respondent stated that "Central and Local government provide support either through counterpart funding." - Government, design, implement, and monitor and evaluate projects.
Beneficiaries i.e. rural community members	- Project ownership
Rural community leaders	- They act as middlemen between the project implementers and the community members. - They impose an idea on the rural community to intervene in.
Community based organizations (CBO), women's groups, religious groups and youth groups.	- Help to determine feasible projects that meets community member's needs. - Manage on-going projects. - Maintain unity amongst community members. - Perform the role of policy implementation and evaluation body. - liaise with bodies outside the community to facilitate development - assist in the sensitization of community members and act as the voice of the people
Local Non-Governmental Organizations (LNGOs)	- Provision of funds for projects - Implementation of projects
International Non-Governmental Organizations (INGOs)	- recruitment of qualified man-power to design and implement more successful rural development projects - funding of projects: respondent stated that "International organizations also provide funds, ensure accountability of projects, and good press"
Private sector	- support rural development projects in the form of Corporate Social Responsibility

Respondents indicated that some of the gaps in the roles' stakeholders play are:

i. Lack of ownership by community members

ii. Lack of/unsuitable stakeholder analysis. One of the respondents stated that "The community thinks that maintenance is the responsibility of the government. Secondly, sensitization is required for effective maintenance at the time the project is handed over to the community.

All respondents indicated that stakeholder's inclusion promotes sustainable rural development projects.

6.2.11. Inclusion and Sustainability Practices of Rural-Based Projects

The general theme amongst respondents on rural project sustainability was continuity. One of the respondents gave this remark:

"*A sustainable project is one that can be seen, functional after the initiators have left*."

The response given by the respondent's captures Sachs, (2016) explanation of sustainability. Another respondent stated sustainability as

"*A sustainable project is one that can be maintained by local authorities and community*."

This perspective given by the respondents is more wholesome, this is because rural project sustainability is not just about project continuity, but functionality and maintenance.

Another finding under this theme is that most respondents have been involved in the planning and implementation of sustainable rural development projects. The theme that resonated with rural project sustainability amongst respondents was the training of beneficiaries. This finding was supported by research by Abiona, Adeniyi, & Adekunle A (2018) which suggests that sensitization is important to aid rural project acceptance. In addition to this, respondents indicated that funding for rural development projects were both locally and internationally generated. Monitoring and evaluation was also observed as a driver for sustainable rural development projects.

Practices that emerged from this study and employed to ensure project sustainability are:

i. Conduct of needs assessment prior to the implementation of the project
ii. Acceptance of the project by rural community members
iii. Comprehensive project design
iv. Adequate funding for the implementation and sustenance of the project
v. Implementation of project according to scope,
vi. Monitoring and evaluation of the project
vii. Stakeholders' involvement.

One of the respondents remarked that "*The appropriate technology that addresses the problem is identified through needs assessment, use of community-based activities and a participatory approach to effectively solve the problem.*"

Respondents mentioned that some of the gaps in the design, implementation and monitoring and evaluation stage are because of poor implementation, lack of standard reporting, poor monitoring and evaluation in the design, implementation and monitoring and evaluation stages.

Respondents indicated that these gaps may be filled by close monitoring of stakeholders. In addition to these, continuous functionality, appropriate siting of projects, costing, community engagement, monitoring and evaluation and appropriate technology were the responses given by respondents to promote rural project sustainability.

6.2.12. Analyzing Rural Development Project Failure

Respondents indicated that failed projects are projects that do not follow the due procedures, meet set goals and sensitize end-users on the purpose of the project. A respondent stated the following:

'We worked on a 'Food for Peace' project a while ago in Maiduguri, Borno State, Nigeria. The aim of the project was to give food to different communities. There was this community named Bulabulin, where the community leaders complained that members of the community did not receive food assistance. It was found that this was as a result of conflict of interest, brought about by enumerators who were supposed to go house to house to collect data but ended up registering most of their relatives'.

Based on the comment above, the said project failed because it was unable to meet set goals as a result of poor targeting (i.e. needs assessment). This finding agrees with that from the literature by Zuofa and Ochieng, (2014), who state that project failure happens when a project has not delivered what was required, in line with expectations. Respondents indicated that sustainable rural development projects fail because of inappropriate technology, need assessment not carried out, weak community inclusion, and lack of continuity support, inadequate funding, and lack of sustainability plan from the design stage.

Respondents also indicated that it is the collective responsibility of every stakeholder to bridge the gaps that play out in rural development projects. Respondents suggested that these gaps may be mitigated against by implementing the elements of project sustainability which are motivation, needs assessment, maintenance, cost recovery, and continuing support. Motivation in this case, is an initiating process that guides and maintains goal-oriented behaviors for sustainability, maintenance is preservation through continual support, and cost recovery is the process of accounting for costs and revenue brought about by the project (Krishna, 2008).

6.3. SUMMARY

This chapter presented and discussed the findings from the qualitative study which was conducted via KIIs and analyzed using content analysis. The chapter aimed to meet objectives two, three, and four which are to establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies, processes and technologies involved; identify and evaluate the roles of the different actors and stakeholders involved in project implementation; and evaluate the inclusion and sustainability practices of rural-based projects. From the findings, the respondents who are stakeholders in rural development projects, were aware of what project planning and implementation entails in rural development. They noted the importance of needs assessment in project planning, and the need for monitoring in project implementation. Although the respondents stated that the common practice in project planning is community engagement, most of the respondents were not aware of any benchmarks for planning and implementation in rural development projects. These findings indicated a gap that would be made up for in the integrative framework and CMM.

The respondents noted that planning and implementation are the most crucial stages in determining the success or sustainability of any rural development project. Appropriate technology and stakeholder inclusion were also found to be factors that promote sustainability of any rural development project. The gaps in the planning and implementation stage, based on the findings, include corruption, poor monitoring and evaluation, non-involvement and disunity of stakeholders, etc. from the findings, these gaps can be filled checks and balancing and multi-stakeholder monitoring. It was also noted that every stakeholder should be responsible for bridging the identified gaps. The respondents stated beneficiaries, implementing agencies, Government, donors, political officers, youth and community leaders as the known stakeholders in rural development projects their roles and responsibilities were also analyzed. The recurring theme on sustainability was continuity. The factors that promote and gaps that hinder sustainability were also assessed in the chapter.

Although most of the findings support the literature review, the results highlighted some new issues that would be considered in the development of the framework and CMM. The findings also created a need to further assess the extent to which the themes discussed are applicable in the geographical scope of study. Thus, the next chapter presents the quantitative findings and elaborates on the qualitative findings to generate more grounded results for the formulation of an integrative framework and CMM to enhance the sustainability of rural development projects.

CHAPTER SEVEN: RESULTS FROM QUANTITATIVE STUDY

7. INTRODUCTION

This chapter presents the findings from the quantitative study which was carried out with the use of structured questionnaires. The objective of the quantitative study is to quantify, support or refute the findings from the literature review and the qualitative study (Apuke, 2017). Thus, the results presented in this chapter further analyze the qualitative findings in chapter six. The sections in this chapter are structured to respond to research objectives two, three and four; and the findings would also be used in the development of the integrative framework and CMM.

There are four sections in the chapter. The first section (7.2.1) brings to the fore findings relating to the planning and implementation practices in Nigeria, it covers crucial issues such as awareness and involvement of community members in rural development projects; the rural development project strategies applicable in Nigeria; challenges that affect the design, implementation, monitoring and evaluation of sustainable rural development projects; and the factors that promote sustainable rural development projects. The second section (7.2.2) describes the role of stakeholders in project implementation, while considering the impact of each stakeholder in the implementation of the projects, and an assessment of the stakeholders that are more responsible for the failure of projects. The third section (7.2.3) presents inclusion and sustainability practices in Nigeria, based on the quantitative findings. Finally, section 7.3 is a general discussion on the findings presented in the chapter. Although, the questionnaires were administered in rural communities in Nigeria, the findings can also be applied in other SSA countries sharing similar cultural and regional backgrounds.

7.1 THE FINDINGS

7.1.1 RESPONDENT'S DEMOGRAPHIC INFORMATION

The results presented in this section represents the demographic information of the survey respondents. A total of 404 respondents were reached, and the same number of people completed the survey. The data was disaggregated by gender, as such, 128 (32%) were female

and 276 (68%) were male. The average age of respondents was 36 years. Table 8 below shows the distribution across demographics.

Table 7. 1: Distribution of respondents by gender and age

Gender	Bayelsa		Borno		Imo		Kaduna		Nasarawa		Ogun		Aggregate	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Female	32	47	16	24	24	36	23	34	12	18	21	31	128	32
Male	36	53	52	76	43	64	45	66	54	82	46	69	276	68
Total	68	100	68	100	67	100	68	100	66	100	67	100	404	100
Age	Bayelsa		Borno		Imo		Kaduna		Nasarawa		Ogun			
Range	23-49		24-59		20-72		21-67		17-55		25-78			
State Average	30		33		33		38		34		49			
Average Age	36													

Most of respondents were community members (74%), and community leaders/traditional leaders (14%). The remaining 12% consisted of NGOs, and government representatives. The implication of this is that most of the information gathered from the survey represents the viewpoint of community members in the sample locations. The quantitative study concentrated more on community members because qualitative study gathered information mostly from other stakeholders, also, from the literature review and from answers gathered from the KIIs, community members should be the most influential stakeholders in any rural development project.

7.1.2 PLANNING AND IMPLEMENTATION PRACTICES

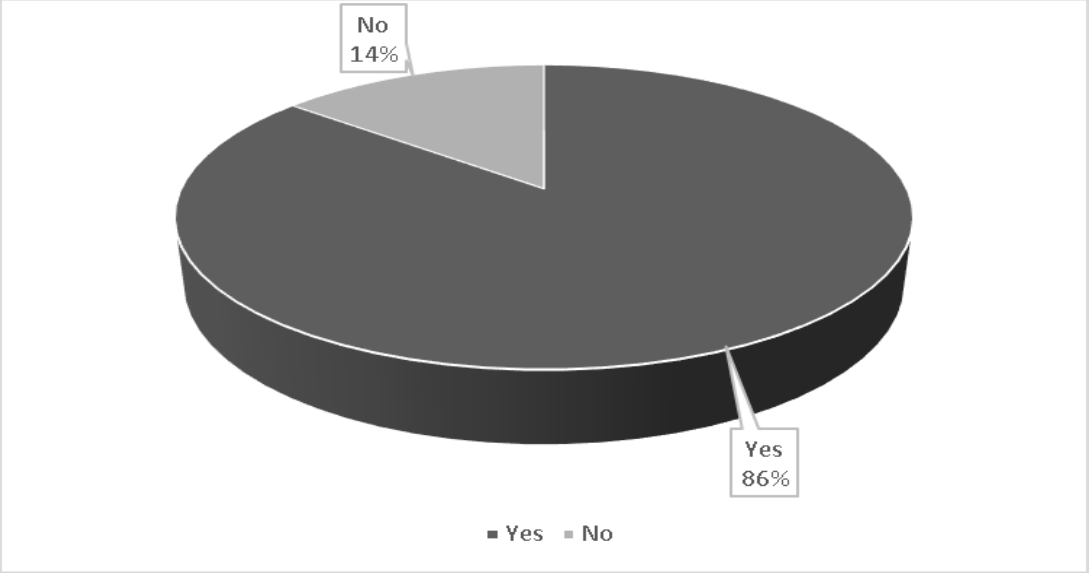
This section shows how the survey data meets research objective two: to establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies systems, methodologies, processes, and technologies involved. From the qualitative analysis, some of the best practices obtainable in the implementation of rural

development projects include: Community based activities such as community engagement, community mobilization, participatory rural assessment, and the use of a community development planning approach. Thus, the quantitative study went further to probe the respondents on their level of awareness and involvement in rural development projects to establish the extent to which the practices mentioned above are obtainable in rural areas. The section continues by analyzing the strategies (i.e. top-down approach or bottom-up approach) that are used in rural development projects in Nigeria, as well as the factors that promote and challenges that hinder the planning, implementation, and sustainability of rural development projects.

7.1.2.1 Awareness of Rural Development Projects in Communities

Awareness is necessary in bringing information to people's notice. It could be done through awareness campaigns, advertisements through media such as television and radio, and other means of information dissemination available in rural areas (Costabile, 2021). Based on the quantitative findings, a few of the respondents at 14%, were unaware of rural development projects in their communities, implying that the remaining 86% of the respondents were able to identify and locate ongoing or completed projects in their communities. The pie chart in figure 7.1 below represents the findings on the respondents' awareness of rural development projects.

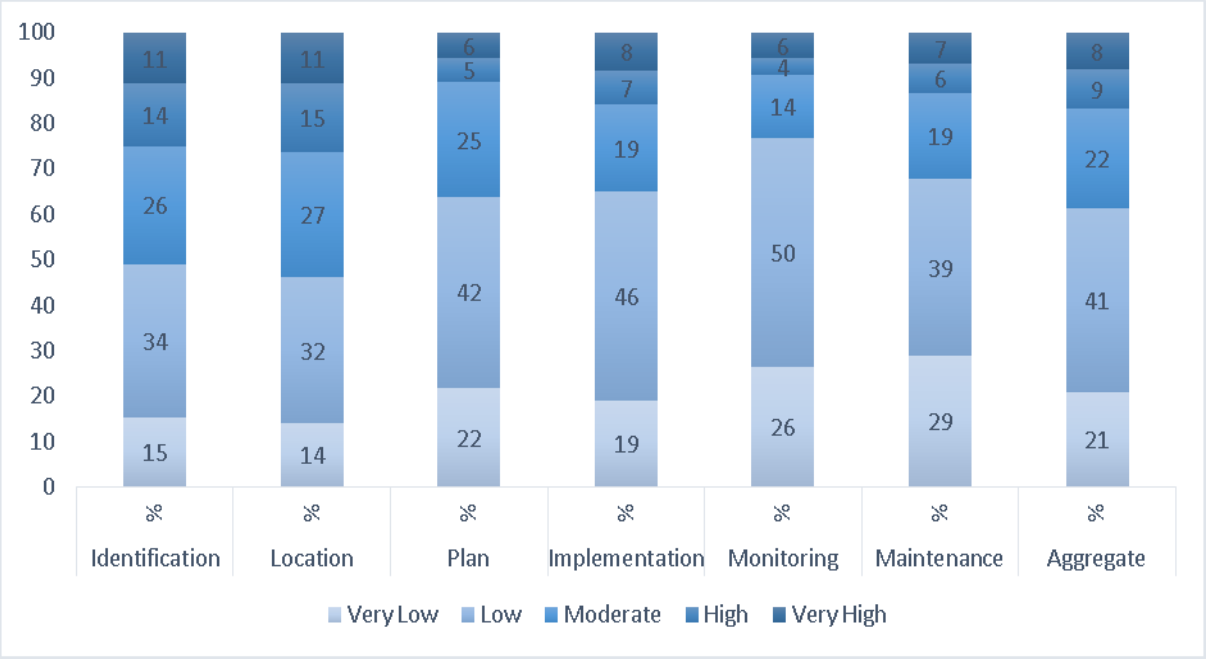
Figure 7. 1: Awareness of rural development projects by stakeholders



To inquire deeper into the level of awareness of stakeholders in rural development projects, the participants were specifically asked about their level of awareness regarding the various stages involved in the planning and implementation of sustainable rural projects. These stages include project identification, location, project planning, implementation, monitoring, and maintenance. In terms of project identification and location, 49% and 46% indicated a low or very low level of awareness, implying that a fair number of people in the community are aware of where rural development projects are located in their communities, and are able to identify them.

The core stages of the project are the planning, implementation, monitoring, and maintenance stages. In these stages, the level of awareness of the community was mostly low or very low as confirmed by 64%, 65%, 76%, and 68% of respondents respectively. These results are presented in the chart in figure 7.2 below:

Figure 7. 2: Level of awareness of community members in the various stages of sustainable rural development projects



It can be deduced from the results that although community members were able to identify and locate projects in their communities, the awareness on planning, implementation, monitoring and maintenance of projects was rather low. Therefore, there is a need to create more project awareness through community engagement and other means of information dissemination, as

this is still lacking in most rural communities. The implication of lack of awareness of community members in the core stages of a project is consequently failure to meet the needs of the end-users, misuse, and mismanagement of the project facilities.

To tackle the aforementioned issue, Ranke and Ranke (2016) find a Community Awareness and Participation Plan (CAPP) to be effective in ensuring widespread, ongoing, and meaningful participation of the key stakeholders with the inclusion of groups that are often marginalized. Additionally, project impact and sustainability are evidently improved when all stakeholders, especially community members, are aware of the planning, implementation, and maintenance of ongoing and completed rural development projects (Ranke & Ranke, 2016).

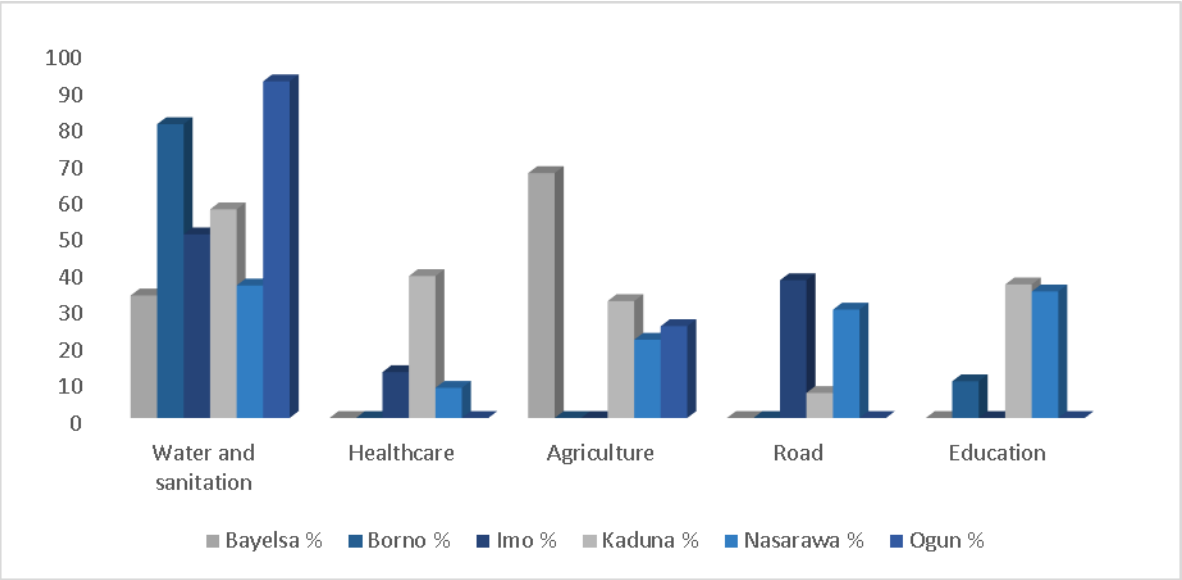
7.1.2.2 Involvement of Community in Planning and Implementation of Rural Development Projects

In the literature review, a project mapping recorded that in Bayelsa State specifically, 37% of the implemented projects were found to be non-functional. These projects include Education, Health, and Water & Sanitation projects amongst others (OSSAP-MDGs, 2014). Bearing in mind that rural development projects cut across several sectors in a community, the research participants were asked on the type of project they have been involved in and the most common response was water and sanitation projects, followed by agricultural projects, as seen in the chart in Figure 7.3. The responses indicated for healthcare, road and education projects were relatively low and the possible implications of this finding are that:

- There are not enough development projects carried out in healthcare, road, and education sectors;
- There is less involvement of key stakeholders in the implementation of these projects.

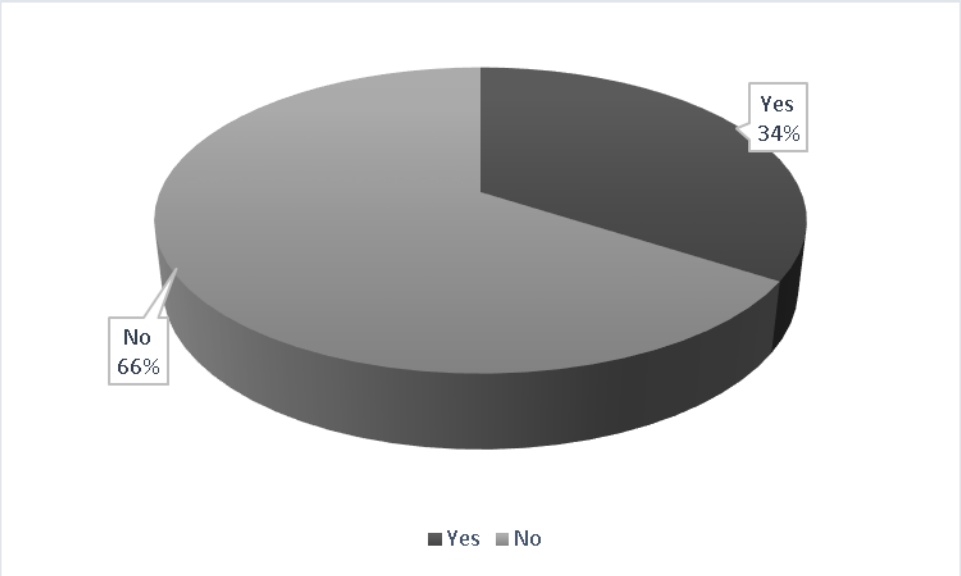
Non-involvement of key stakeholders in these development project sectors i.e. healthcare, road and education, which are necessary to improve the standard of living of rural dwellers could lead to the projects' inability to meet the needs of beneficiaries and non-accountability during project implementation.

Figure 7. 3: Types of projects that the respondents have been involved in



The lack of awareness of rural development projects results in lesser participation and involvement of community members and other stakeholders. Majority of respondents (66%) indicated that they were not involved in the planning and implementation of any sustainable rural development projects in their communities (see pie chart in figure 7.4).

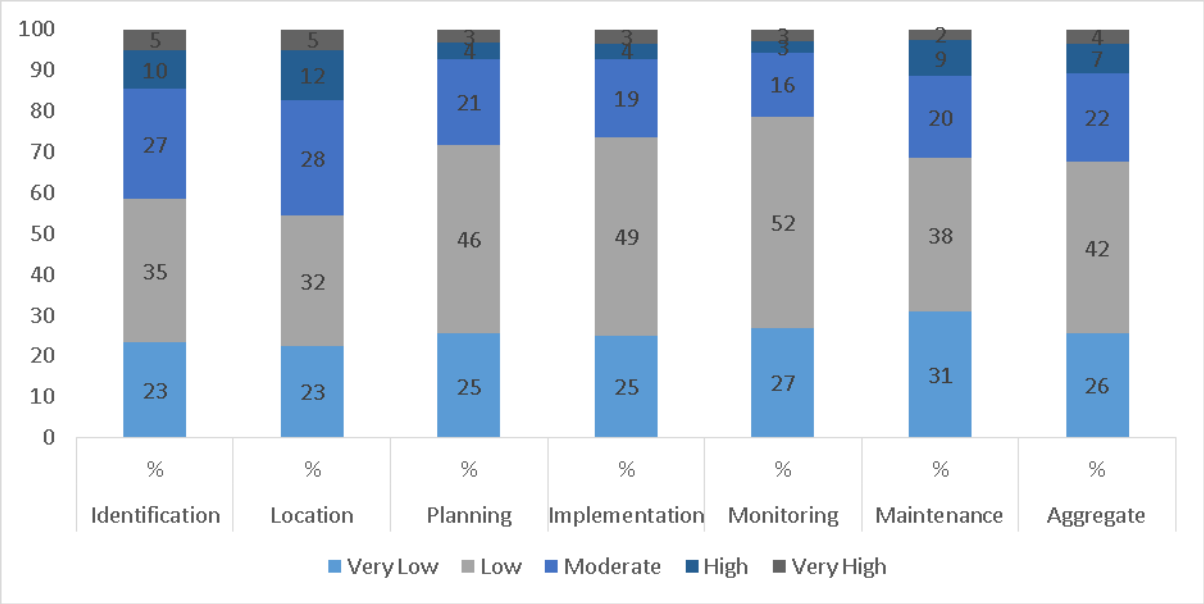
Figure 7. 4: Involvement in the planning and implementation of any sustainable rural development project



The chart in figure 7.5 describes the various stages involved in the planning and implementation of sustainable rural projects - project identification, location, project planning,

implementation, monitoring, and maintenance. The respondents indicated that there was a low level of consultation of community members at the various stages. Findings also show that there was a low level of involvement of the community in decision making as indicated by most of the respondents.

Figure 7. 5: Level of community input/involvement regarding the various stages involved in the planning and implementation of sustainable rural development projects



7.1.2.3 Rural Development Projects Strategies

The literature review showed that rural development projects are either driven from the top-down, bottom-up or mixed-method approaches. However, the quantitative data collection tool (i.e. the questionnaire) did not include the mixed-method approaches because it is not a popular method utilized in Nigeria. The top-down strategy determined the way development projects were undertaken during the early practice period of development history (Parpart & Veltmeyer, 2004). Nevertheless, the bottom-up approach on the other hand gained preference by project implementers in more developed countries because it offers a methodology that focuses on how communities can lead their own development process (Christopher, 1999). Thus, this section presents the results of which strategy is prominent in Nigeria.

Figure 7. 6: Prevalent approach to rural development projects in the community

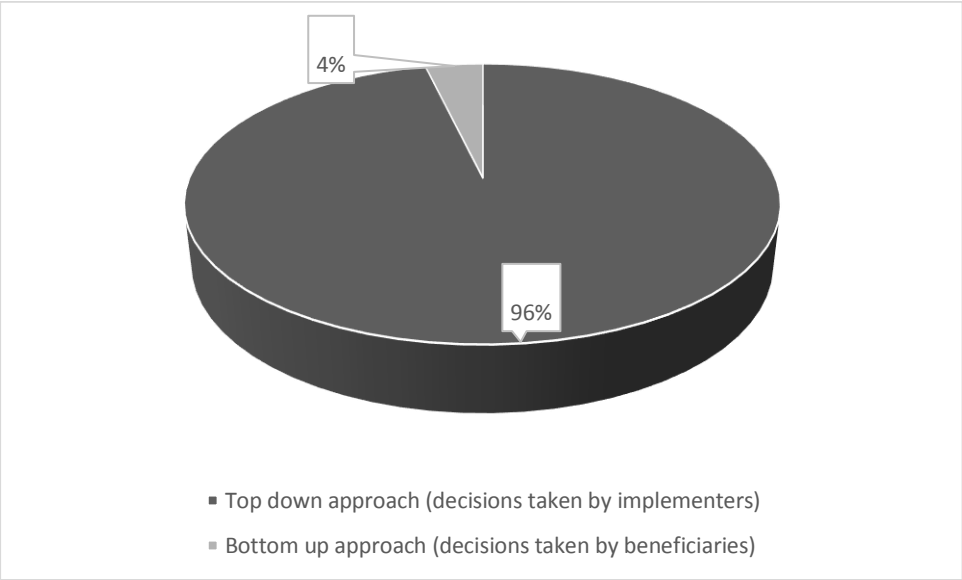
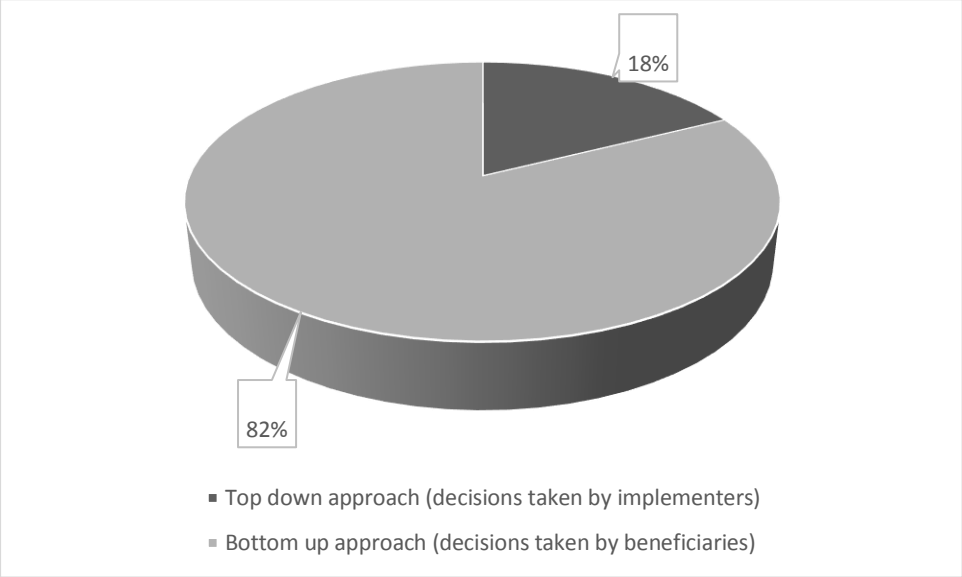


Figure 7. 7: Effective approach to rural development projects in the community



In the literature review, it was indicated that the bottom-up approach in which the projects implementers pay attention to the opinion and needs of beneficiaries, often time records a higher level of success in comparison with rural development projects which utilizes the top-down approach (where implementers solely make decisions). Findings from the survey established that the top-down approach is more prevalently applied to rural development projects (see chart in figure 7.6) despite the fact that respondents are aware that the bottom-up approach is more effective for development projects (see chart in figure 7.7).

To solidify this point, an OLS regression analysis was carried out, to determine the relationship between project sustainability and the prevalent approach to rural development in Nigeria, which is the top-down approach. The results are summarized in the table below:

Dependent Variable: SUSTAINABILITY

Table 7. 2: OLS regression for project sustainability and the prevalent approach to rural development

VARIABLE	**COEFFICIENT**	**STANDARD ERROR**	**T-STATISTIC**	**PROB.**
c	4.707920	0.522941	9.002772	0.0000
Prevalent Approach (Top-down Approach)	-0.574587	0.265246	-2.166239	0.0309

Computed by author using e-views

The t-statistic values of the variables are used to test for individual significance of the parameters and are determined by the probability value. Using the t-test to check for statistical significance, based on the probability value, we test the hypothesis below;

H_o: $\beta_{\text{(Prevalent Approach (Top-down Approach))}} = 0$ (Prevalent Approach (Top-down Approach) is not significant)

H_1: $\beta_{\text{(Prevalent Approach (Top-down Approach))}} \neq 0$ (Prevalent Approach (Top-down Approach) is significant)

Based on 5% critical level, and a probability value of 0.0309, the null hypothesis is not accepted. Therefore, with a coefficient value of -0.574587, a negative significant relationship exists between the top-down approach and rural development sustainability. It is therefore evident that neglecting more suitable approaches to rural development significantly contributes to project failure.

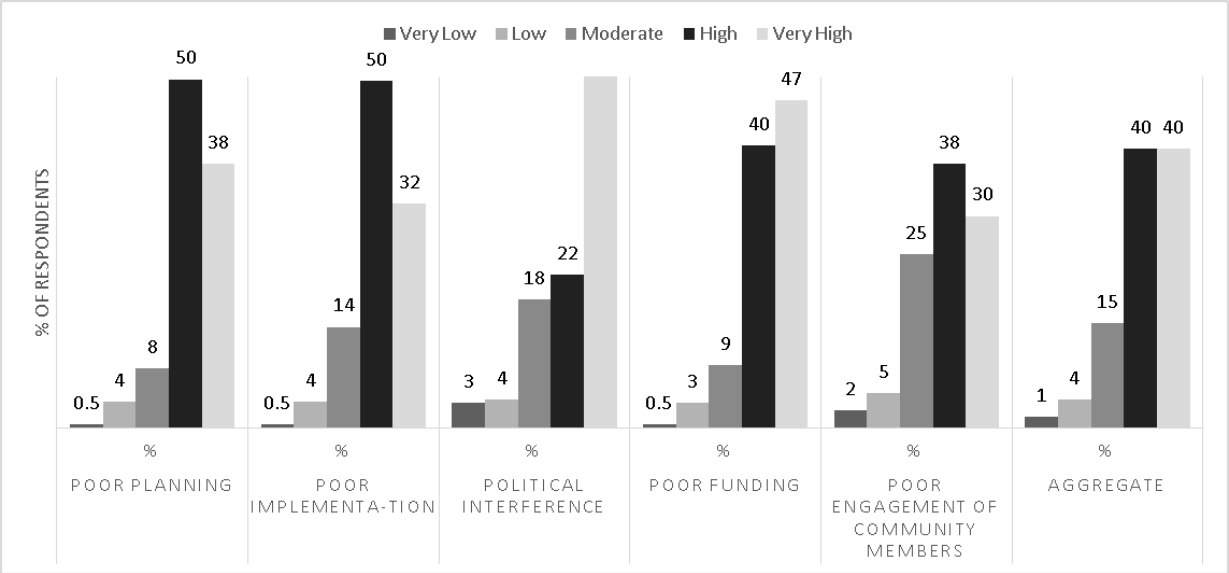
7.1.2.4 Challenges That Affect the Design, Implementation, Monitoring and Evaluation of Sustainable Rural Development Projects

Nweze (2016) stated that for a project to achieve its purpose, the organization of the project design and implementation must be integrated and aligned to enable the people carry out their functions efficiently. He also stated that however, many construction companies in Nigeria engage in unprofessional practices that lead to project failure. Apart from the construction companies, researchers like Ogunmola (2015) and Eja et al (2019) are of the opinion that the state and federal government are complicit in the failure of these projects through their insensitivity and inability to enforce policies to prevent these failures. However, from the qualitative analysis, some challenges were found to affect the design, implementation, monitoring and evaluation of sustainable development projects. These challenges include the following:

- Poor planning, in which the schedule or plan for the project is not properly set out, resulting in the lack of a clear picture for project implementers to follow;
- Poor implementation, whereas the already laid-out plan is not strictly followed;
- Political interference, which indicate the obstruction or hindrance of the project by powerful people or groups;
- Poor funding, where the financial needs of the project cannot be met ; and
- Poor engagement of community members.

Thus, the quantitative survey went further to analyze if these challenges influence sustainable development projects in the target areas, and the extent of their influence on the projects. The findings illustrated in the bar chart in figure 7.8 confirmed that the effect of these challenges on the design, implementation, monitoring and evaluation of sustainable development projects, on aggregate, is very high.

Figure 7. 8: Effect of challenges on the design, implementation, monitoring and evaluation of sustainable rural development projects



Poor project planning affects all the stages of the project, from project design to sustainability. This was evident in the Funtua Agricultural Project executed in Kastina State, Nigeria (see 3.6.1) and the bright program (see 3.6.4) which both lacked sustainability plans. As a result of poor planning, the project was unable to meet all of its objectives. Similarly, poor project implementation affects consecutive stages of the project. Political interference and poor funding were indicated to serve as the most common barriers faced by rural development projects. For example, the WASH project discussed in 3.6.3, which was carried out in Pyakasa, Abuja Nigeria broke down a few years after installation as a result of poor funding. The Funtua project and the Pyakasa project set up good examples amongst others, to back up the quantitative finding on the effects of the challenges on the sustainability of rural development projects.

In addition, the survey participants highlighted more challenges that affect the sustainability of rural development projects. They include:

- Use of inferior materials
- Corruption and embezzlement of Project funds
- Conflict of interest between the members of the community
- Delay in completion of the project
- Employment of incapable hands to execute these projects

- Political instability, as continuity of uncompleted projects is often halted when a new political party emerges

Additionally, these challenges are evident in all sectors of development including WASH, road, and electricity projects, as explained in the literature. All of these challenges have disrupted the usability and sustainability of development projects in rural areas in Nigeria.

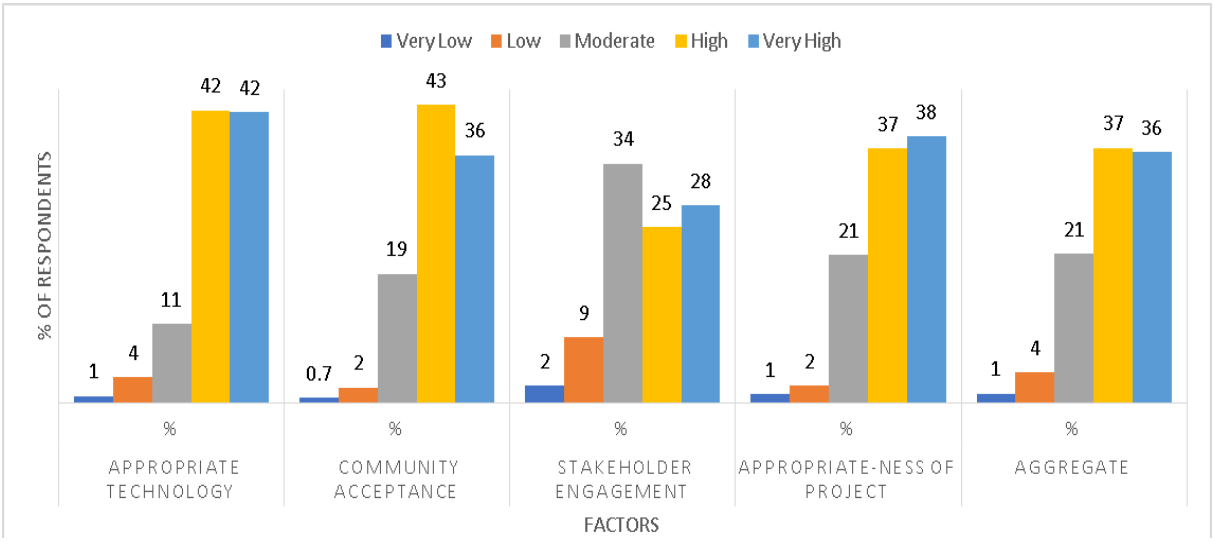
7.1.2.5 Factors That Promote Sustainable Rural Development Projects

From the qualitative findings, the factors that promote sustainable rural development projects include:

- Appropriate technology;
- Community acceptance;
- Stakeholder engagement; and
- Appropriateness of project.

Based on the responses from the quantitative findings, community engagement was the most important factor in promoting sustainable rural development projects. This was followed by appropriate technology, appropriateness of the project (which is the ability of the project to meet the needs of the beneficiaries), and stakeholder engagement. This result is represented in the chart in figure 7.9 below:

Figure 7. 9: Factors that promote sustainable rural development projects



To further determine the impact of these factors on the sustainability of rural development projects, an OLS regression was carried out. The results from the regression are summarized in table 7.3 below:

Table 7. 3: OLS regression to determine the factors that promote sustainable rural development projects

Dependent Variable: SUSTAINABILITY

VARIABLE	COEFFICIENT	STANDARD ERROR	T-STATISTIC	PROB.
Appropriate technology	0.389745	0.055929	6.968590	0.0000
Appropriateness of project	0.287189	0.054707	5.249612	0.0000
Community acceptance	0.378375	0.058017	6.521737	0.0000
Stakeholder engagement	0.153409	0.051490	2.979412	0.0031

Computed by author using e-views

Appropriate Technology

Using the t-test to check for statistical significance, based on the probability value we test the following hypothesis;

H_o: $\beta_{(\text{appropriate technology})} = 0$ (appropriate technology is not significant)

H_1: $\beta_{(\text{appropriate technology})} \neq 0$ (appropriate technology is significant)

Based on 5% critical level, and a probability value of 0.000, the null hypothesis is not accepted. Therefore, if more appropriate technology is employed in the implementation of a rural development project, keeping other variables constant (ceteris paribus), there will be greater chances for the project to be sustained. This means that a positive significant relationship exists between project sustainability and appropriate technology. This finding supports the works of Bolay (2012).

Appropriateness of Project

Appropriateness of a rural development project refers to the suitability of the project to the needs of the community. Using the t-test to check for statistical significance, based on the probability value we test the following hypothesis;

H_o: $\beta_{(\text{appropriateness of project})} = 0$ (appropriateness of project is not significant)

H_1: $\beta_{(\text{appropriateness of project})} \neq 0$ (appropriateness of project is significant)

Based on 5% critical level, a probability value of 0.00 which is less than 0.05 and a coefficient of 0.287189, the null hypothesis is not accepted. Thus the OLS result signifies that a positive relationship exists between appropriateness of a project and project sustainability, the result is significant.

Community Engagement

From the OLS result, the coefficient value for community engagement is 0.378375. It can therefore be deduced that community engagement has a positive impact on the sustainability of a project. Also, using the t-test to check for statistical significance, based on the probability value we test the following hypothesis;

H_o: $\beta_{(\text{community engagement})} = 0$ (community engagement is not significant)

H_1: $\beta_{(\text{community engagement})} \neq 0$ (community engagement is significant)

Thus, based on 5% critical level, and a probability value of 0.00, which is less than 0.05, the null hypothesis is not accepted and conclude that the coefficient of community engagement is statistically significant. This finding supports that of Ranke & Ranke, (2016).

Stakeholder Engagement

Using the t-test to check for statistical significance, based on the probability value we test the following hypothesis;

H_o: $\beta_{(\text{stakeholder engagement})} = 0$ (stakeholder engagement is not significant)

H_1: $\beta_{(\text{stakeholder engagement})} \neq 0$ (stakeholder engagement is significant)

Based on 5% critical level, a probability value of 0.000 and a coefficient of 0.153409, the null

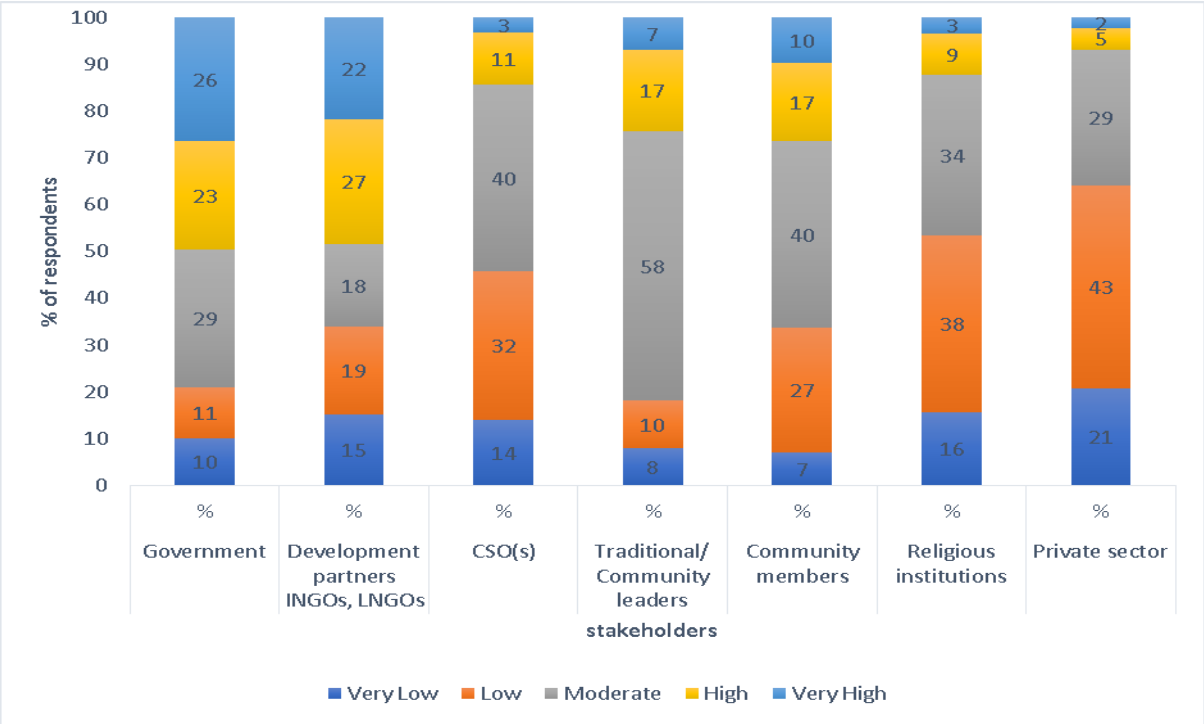
hypothesis is not accepted. Therefore, keeping other variables constant (ceteris paribus), stakeholder engagement has a positive significant impact on sustainability of rural development projects. However, it is of importance to add that stakeholder engagement must be efficiently done in order to promote rural development projects' sustainability (Van, 2013).

7.1.3 ROLES OF THE DIFFERENT ACTORS AND STAKEHOLDERS INVOLVED IN PROJECT IMPLEMENTATION.

In the qualitative findings in Chapter 6, the list of stakeholders and their corresponding roles were clearly stated based on the findings from the interviews. The quantitative data further analyzed the level of each stakeholder's impact/interest in the implementation of a rural project.

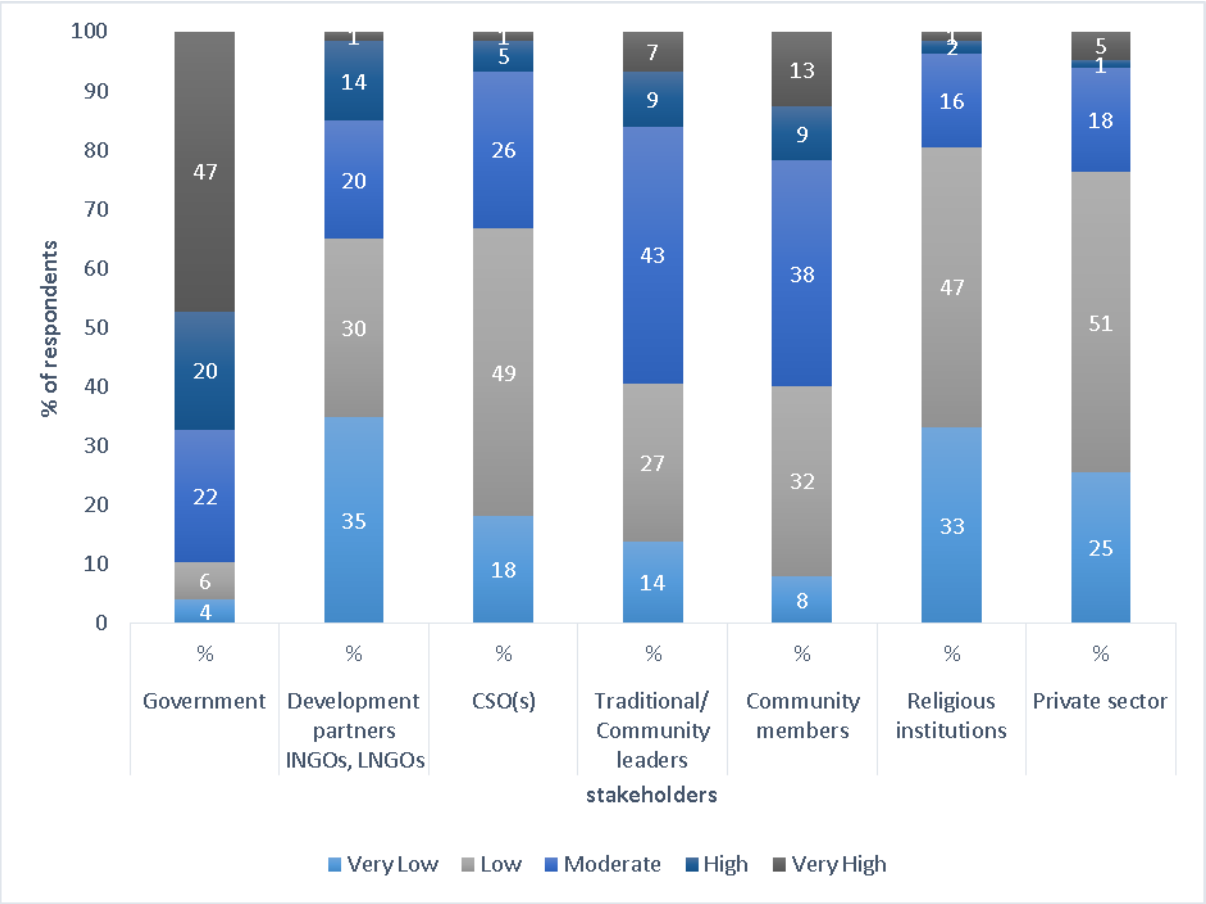
From the analysis, the government (state or federal) mostly participates in the planning, implementation and evaluation of rural development projects, followed by development partners such as international NGOs and local NGOs. The participation of community members, traditional/community leaders, CSOs and the private sector are relatively low. Similarly, the government and development partners have greater influence in ensuring sustainability of rural development projects, as shown in the chart in the figure below:

Figure 7. 10: Level of stakeholders' impact in ensuring sustainability of rural development projects



The implication of the data presented above is that the government does not just have a superior influence in ensuring sustainability of rural development projects but can also be the most responsible for its failure. This is corroborated by the majority (47%) of responses indicating that the government is mainly responsible for failure of rural development projects (see chart in figure 7.11).

Figure 7. 11: Stakeholders responsible for failure of rural development projects



The survey participants were generally of the opinion that sometimes, the government and development partners engage the community leaders only, and exclude community members. They believe that if appropriate funding is made available by the government, community members will do a better job in sustaining rural development projects since they are the direct beneficiaries of the projects. This finding is supported by the CRDP framework discussed in chapter 4, which argues that rural development projects' sustainability will be made possible if rural dwellers are enabled to take control of these projects with support from the government (MRDLR, 2009).

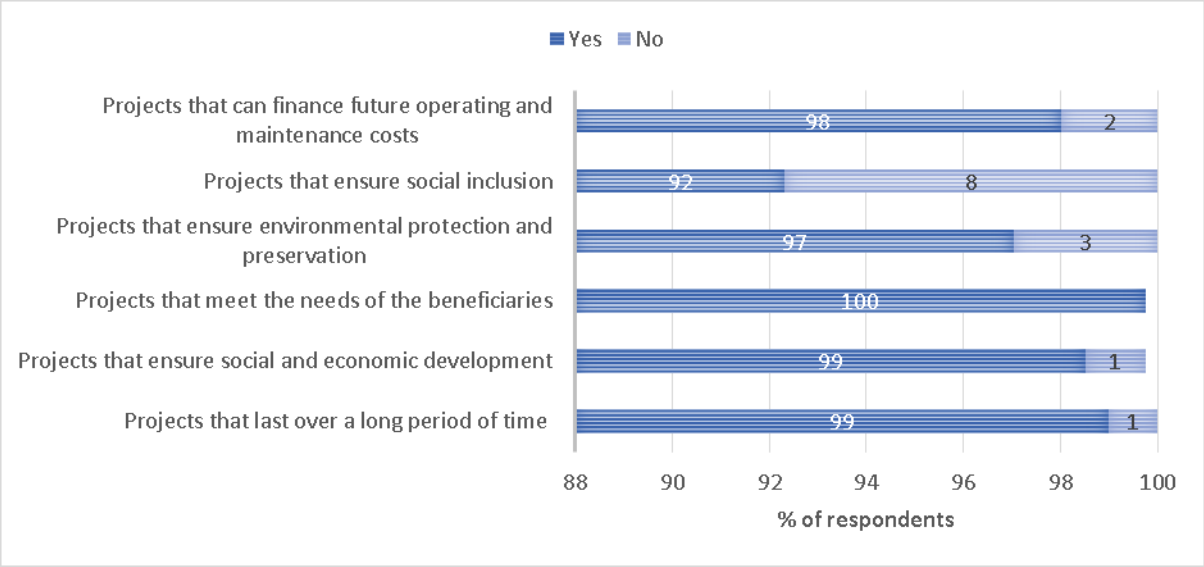
7.1.4 INCLUSION AND SUSTAINABILITY PRACTICES OF RURAL-BASED PROJECTS

Project sustainability means planning the origin of the resources necessary to continue activities in the medium and long term once the project has ended. In the administered questionnaire, the definition of sustainability was further broken down to present a deeper

understanding of what sustainable development projects are to the respondents.

The qualitative analysis showed that the respondents had a clear understanding of what sustainable development projects entail, and of the respondents agreed that it is important for sustainable rural development projects to meet the needs of the beneficiaries (i.e. community members) (see chapter 6, section 6,2,1,1). The quantitative study results shown in the chart labelled figure 26, further goes to show that although people have a clear understanding of the definition, a few are unaware of the importance of social inclusion in the sustainability of rural development projects as explained in chapter 2, section 2.1.2.1.

Figure 7. 12: Understanding of sustainable rural development projects



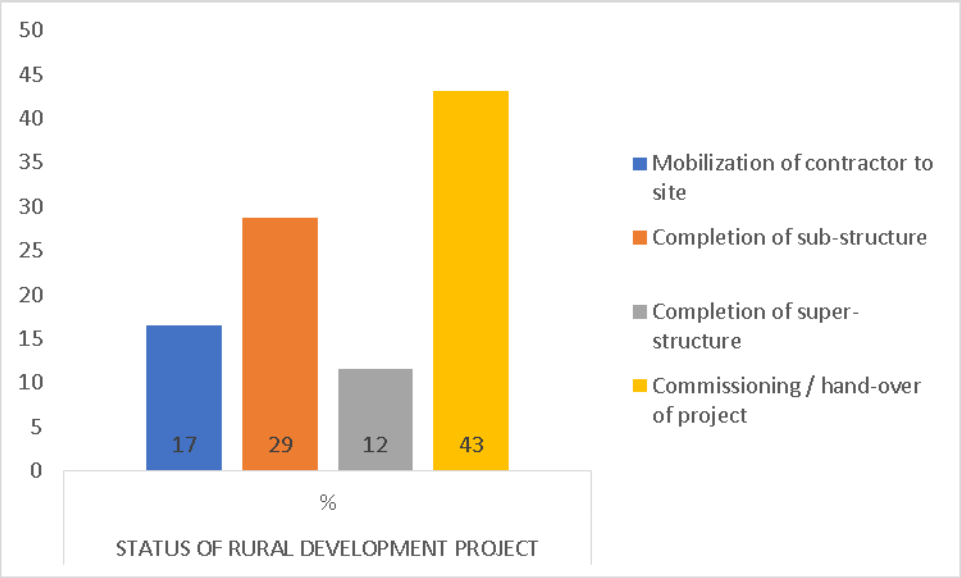
According to the literature findings, social inclusion is positively correlated with project sustainability. According to Hayes et al, (2007), the implication of disregarding social inclusion in terms of implementation of rural development projects is that the project might not be in the interest of disadvantaged groups. This is because social inclusion focuses on creating conditions for equal opportunities and equal access for all, regardless of sex or circumstance, in order to achieve equitable rapid economic growth. Social inclusion is an instrument for achieving the SDGs, (UN, 2015), and hence, is really important for the promotion of sustainable rural development projects.

Sustainability Practices

The respondents were asked about the general completion status of the rural development

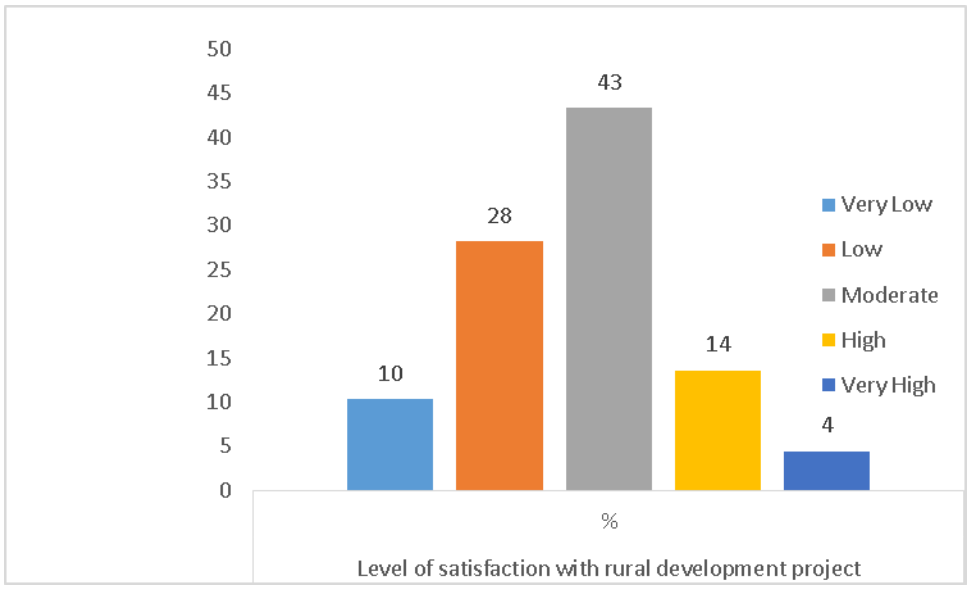
project(s). A large proportion of the respondents (43%) stated that the projects had reached completion stage (commissioning/hand-over) as described in the chart labelled figure 7.13

Figure 7. 13: Completion status of rural development project in the community



As described in the literature, a completed project does not ensure project success or project continuity, but it goes a long way in determining the level of satisfaction of the project. The level of satisfaction of rural development projects in rural communities is mainly moderate or low indicating that respondents are majorly not satisfied with the projects because they do not appropriately meet their needs (see chart in figure 7.14).

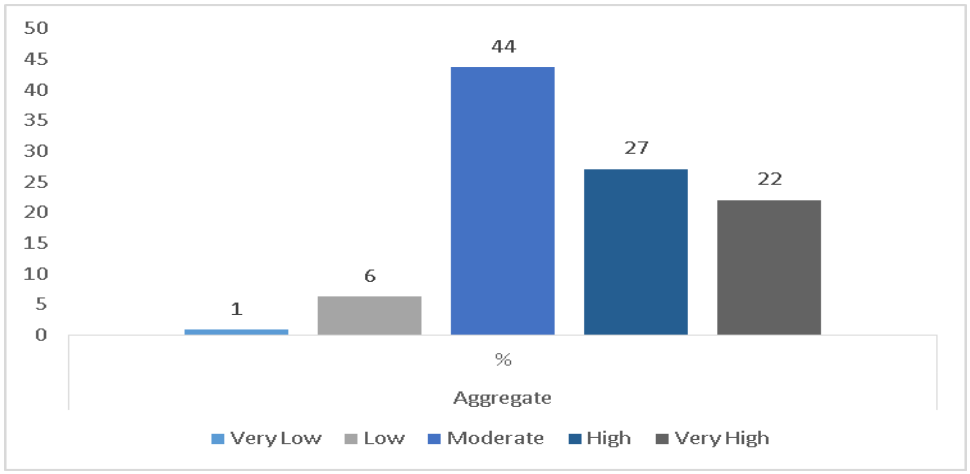
Figure 7. 14: Level of satisfaction with the state of the rural development project



The criteria of sustainability for a development project, according to the literature include- social sustainability (impact on working conditions, compliance with international labor standards, social protection, etc.), financial sustainability, institutional sustainability (structures that allow the results of the action to continue and environmental sustainability (impact on the environment) (ILO 2010).

According to the respondents, rural development projects in their communities can be sustained. In the chart presented in figure 15, the extent to which the project(s) can be sustained was majorly rated moderate to high, indicating that there is a high probability for continuity in development projects in rural areas.

Figure 7. 15: Perspective of respondents on extent to which projects can be sustained



7.1.4.1 SUGGESTIONS FOR ENSURING SUSTAINABLE RURAL DEVELOPMENT

The survey participants were asked to give suggestions for ensuring sustainability of rural development projects. The list below summarizes their responses.

1. Appropriate project implementation
2. Standard monitoring and evaluation of the projects and contractors
3. Adequate sustainability plan
4. Provision and good allocation of funds
5. No tolerance to political interference
6. Community involvement in planning and implementation of rural development project
7. Proper maintenance of project
8. Stakeholder engagement
9. Social and Community Inclusion in all stages of project implementation
10. Accountability and transparency
11. Strict adherence to rural development policies
12. Needs assessment prior to project implementation
13. Good project coverage
14. Strong feedback mechanism
15. Provision of an independent governing body to ensure the sustainability of rural development projects
16. Government support
17. Unity amongst community members
18. Ensure quality projects always.
19. Old projects should be completed before the execution of new ones.
20. Proper project supervision
21. Sanctions should be put in place to prevent the use of substandard products for rural development projects
22. Time management should be enforced in project implementation
23. Community members should be primarily responsible for project sustainability after project hand-over.
24. Community members should be aware that the projects are for them, and they should be taught how to use the projects

The suggestions from the respondents are very significant, and buttress the findings from the literature review and the qualitative study. A lot of emphasis was placed on stakeholder inclusion, community involvement and proper organization in the planning, implementation, monitoring and evaluation stages of the project.

7.2 SUMMARY

Sustainable development seeks to combine environmental concerns with social and economic development. With the concept of sustainable development, it was emphasized that environmental problems should be dealt with in relation to socio-economic issues (Pauw et al 2015). The environment provides resources to an economy and acts as a sink for wastes and emission, but the sustainability and de`1velopment of a location is greatly influenced by socio-economic factors i.e. human behavior (Younis et al, 2017). Social and economic activities could accelerate or hinder sustainable rural development. Invariably, the sustainability of a rural development project is largely dependent on human activities carried out to maintain the project.

On planning and implementation practices, from the qualitative findings, community based activities such as community engagement, community mobilization, participatory rural assessment and the use of a community development planning approach were found to be practices obtainable in sustainable rural development projects. Although, the rate at which these practices are applicable in Nigeria was unknown. Thus, the research employed quantitative methods and found these practices to not be common in the target areas, because the level of involvement of community members in rural development projects is relatively low. This was confirmed by 66% of the respondents. In the same vein, the top-down approach is more prevalently applied to rural development projects in Nigeria, as indicated by 96% of the survey participants.

Additionally, in the qualitative findings, the list of stakeholders and their corresponding roles were clearly stated, and in the quantitative analysis, the level of impact of these stakeholders was analyzed. It was also confirmed that the government (who are the major project implementers) do not only have the most impact on the sustainability of a project but are also the most responsible for project failure. The factors that promote sustainability of rural

development projects were quantified and analyzed using the OLS regression method. From the analysis, it was confirmed that appropriate use of technology, appropriateness of the project, stakeholder engagement and community acceptance are key factors that positively impact on the sustainability of rural development projects in Nigeria.

The collective deduction from the quantitative findings is that there are several neglected issues in rural development projects in Nigeria that can lead to lack of continuity/sustainability of projects. These issues include: Lack of unity amongst project implementers and other stakeholders which can lead to delays in decision making and hitches in the implementation of the project design, corruption through the embezzlement of funds and the contracting of projects to personnel who lack the technical know-how, non-involvement of key stakeholders at the design stage which often leads to the project not meeting the needs of the end-users, poor monitoring and evaluation in the design, implementation and monitoring and evaluation stage, and poor implementation of projects and lack of standard reporting. According to Herrmann, (2014) these challenges are also experienced in other SSA countries such as Zimbabwe, Tanzania, Gabon, etc. The greatest of these identified gaps is the lack of inclusion, especially of community members, who are the end-users /beneficiaries of the projects. The lack of inclusion was a factor identified throughout the analysis, including in the definition of sustainable rural development projects as perceived by respondents of the quantitative survey.

CHAPTER EIGHT: PROPOSED INTEGRATIVE FRAMEWORK AND CAPABILITY MATURITY MODEL

8. INTRODUCTION

This chapter proposes the final integrative framework and CMM for sustainable rural development projects. It begins by revisiting the previous conceptual framework developed in chapter four, then proceeds to discuss the final integrative framework and the project phase factors for the CMM. The validation of the framework and CMM are also discussed in the later part of the chapter, which is followed by a summary.

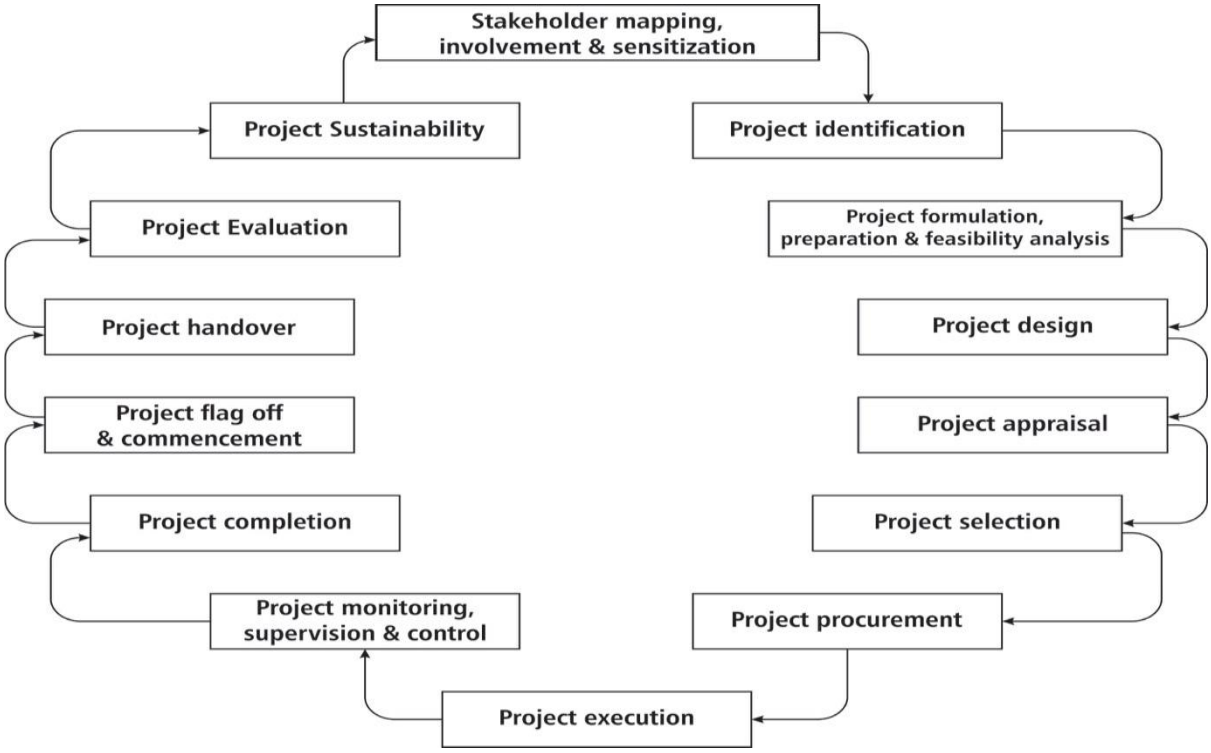
8.1 INITIAL CONCEPTUAL FRAMEWORK

An initial conceptual framework was developed in chapter four, section 4.1 to address the life cycle of sustainable rural development projects. The initial framework consisted of fourteen stages of the life cycle of rural development projects, shown in a chart, with subsections that provided deeper insight into what each stage entails, based on the literature reviewed. These stages included:

1. Stakeholder mapping, involvement, and sensitization
2. Project identification
3. Formulation, preparation, and feasibility analysis of the project
4. Project design
5. Project appraisal
6. Project selection
7. Project procurement
8. Execution of project
9. Monitoring, supervision, and control
10. Project completion
11. Flag off and commencement
12. Project handover
13. Evaluation of project
14. Project sustainability

For ease of reference, the conceptual framework is represented in the diagram labelled figure 8.1 below:

Figure 8. 1: A conceptual framework on the life-cycle of rural development project



One of the objectives of the initial framework was to capture all the necessary stages and their importance for the success of rural development projects. The cycle began with a stakeholder mapping, involvement and sensitization because bringing together all stakeholders to participate during the inception phase will mitigate project uncertainties and expand their scope of understanding and technical knowledge. The involvement of all stakeholders as early as possible in the design phase will also allow stakeholders to verify any constraints and challenges in terms of planning, implementation and sustainability which will contribute to better understanding of timelines, finances and risk management.

The following stages: project identification; formulation, preparation, and feasibility analysis of the project; project design; project appraisal; and project selection are all part of the planning phase of the rural development project. In this phase, issues arise such as costs of materials, transport, manpower; human resources; location etc... Similar issues appear in the

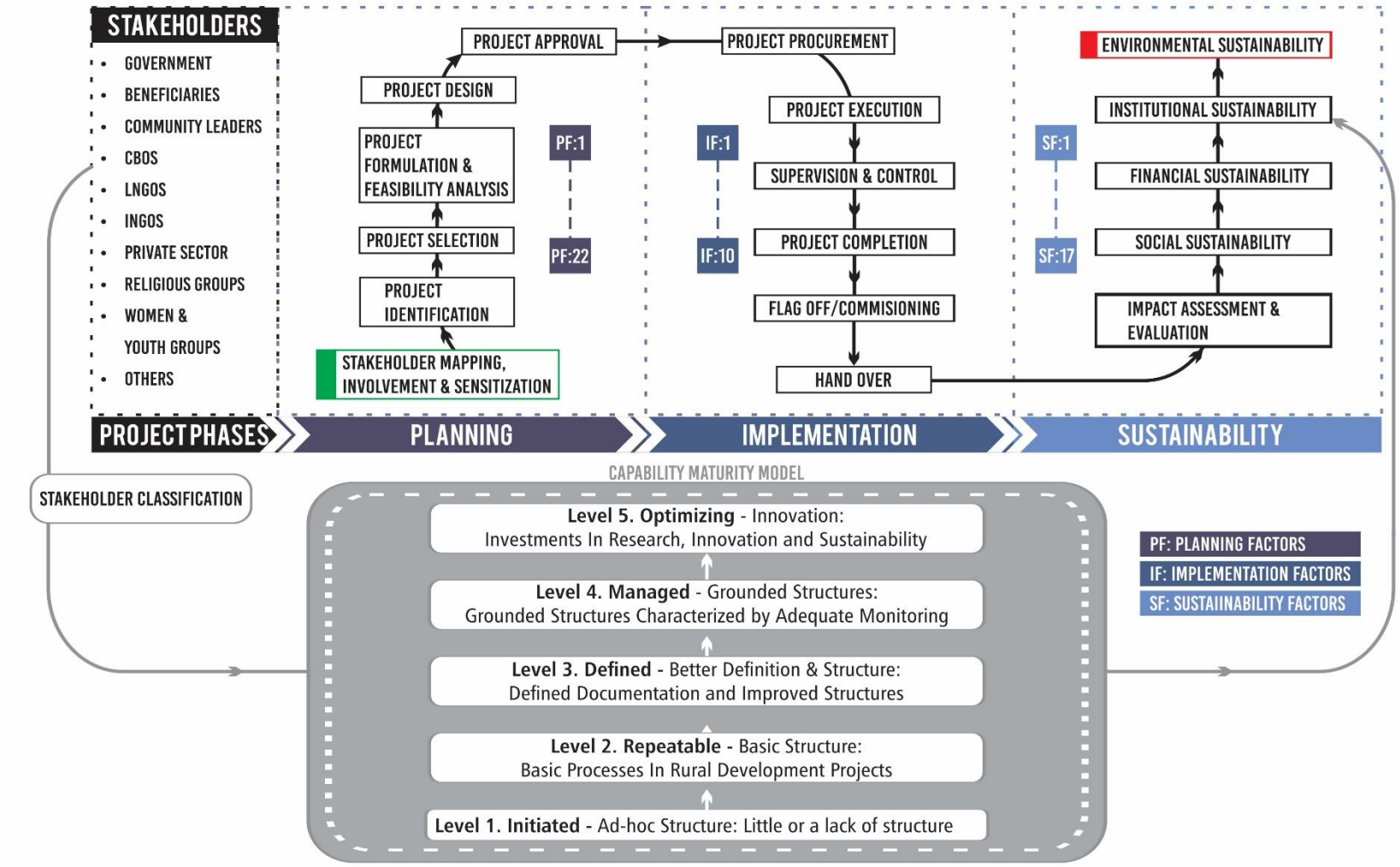
implementation and sustainability stages. Also, there are factors to consider in these stages such as goal setting, needs assessment, community engagement, etc. If the community members (i.e. beneficiaries) are involved during the design, all of the implementation and maintenance lessons learnt and concerns could be captured during planning and all the necessary policies and laws will be incorporated in the planning; this will assist in commissioning the facilities, operating and maintaining them with less risk and improving the appropriateness of the project to the beneficiaries. Additionally, the project implementation phase comprises project procurement; execution of the project; monitoring, supervision and control; project completion; flag off and commencement; and project handover.

The initial conceptual framework only shows the crucial life cycle of the project and does not explain how the stages affect one another. In addition, the initial framework does not take into account, the factors that influence the planning, implementation and sustainability of rural development project. Thus, the next section presents the integrative framework which is a more robust version of the initial conceptual framework.

8.2 THE INTEGRATIVE FRAMEWORK

The final integrative framework was updated to reflect the observations made through the qualitative and quantitative studies. This was done using a matrix structure, in order to illustrate multiple relationships between stages of a rural development project and influencing factors. These stages are also confronted with factors and challenges that could promote and/or hinder the success of the project such as documentation. These factors and challenges, briefly mentioned, were not captured in the initial conceptual framework because they were only realized after data analysis from the qualitative and quantitative study. The framework was developed alongside the CMM, which will be shortly discussed after the presentation of the framework. The integrative framework and CMM developed in this chapter are based on the concepts and theories explored from the literature review as well as the findings gathered from both qualitative and quantitative research methods. The integrative framework is represented in figure 8.2 below:

Figure 8. 2: Final integrative framework



The framework was plotted with a matrix structure where all key stakeholders are listed in the left-hand column, such as Government, beneficiaries, community leaders, INGOs, LNGOs, private sector, women and youth groups, etc. On the middle row, the project phases have been plotted based on the most common execution strategy, starting from planning phases where several milestones need to be completed, such as, project identification; formulation, preparation, and feasibility analysis of the project; project design; project appraisal; and project selection.

Once the planning phase is complete, the project implementers move to execute the implementation phase, where the project procurement; execution of the project; monitoring, supervision and control; project completion; flag off and commencement; and project handover are conducted. In completing the implementation phase an impact assessment and evaluation must be conducted to commence the sustainability phase. The matrix illustrates that social, financial, institutional and environmental sustainability are key aspects and stages that must be taken into consideration to ensure the sustenance of the project.

The framework has plotted all of the factors related to planning, implementation and sustainability as per their occurrence phase, i.e. factors necessary for the success of the planning phase are plotted within the planning phase; factors necessary for the success of the implementation phase are plotted under the implementation phase; and factors that ensure sustenance in the sustainability phase are plotted as per their occurrence frequency. The factor codes are detailed in table 12 above. The framework demonstrates each stakeholder's participation and integration phase, i.e. the government is required to participate during the entire project life cycle, as are the community members and leaders. By this involvement, risks and challenges that could have resulted as a result of lack of inclusion will be addressed and resolved.

The integrative framework also includes the CMM at the bottom row which is made up of five progressive levels. At level one, implementing entities and other stakeholders with a little or lack of structure are classified. It is expected that a basic structure should exist at level two and three. At level four, a grounded structure should exist, characterized by adequate monitoring. Finally, level five is an optimization level characterized by investment in research, innovations and sustainability. These levels have been explained in details in chapter 4, section 4.5. The phase factors of the CMM are further explained in the following section.

8.3 INTEGRATIVE FRAMEWORK PHASE FACTORS

The integrative framework phase factors are useful in determining how easily and how well the integrative framework can accomplish sustainability of rural development projects. As indicated in the literature (chapter 4, section 4.5), the factors may be utilized as a medium to recognize where a rural development project or key player is, in their contribution to rural development intervention (Pak & Song, 2016). Thus, through the development of the integrative framework, a comprehensive list of crucial factors to consider in the planning, implementation and sustainability of rural development projects was developed. This list is represented in table 8.1 below:

Table 8. 1: Project phase factors

FACTOR	PROJECT/PROGRAM	SUB PHASE
PF 1	Strategic actions	**PLANNING PHASE**
PF 2	Needs assessment	
PF 3	Goal setting	
PF 4	Community consultation	
PF 5	Project identification and location	
PF 6	Project Baseline	
PF 7	Community engagement,	
PF 8	Community mobilization and awareness,	
PF 9	Determination of approach (Bottom –up)	
PF 10	Participatory rural assessment	
PF 11	Assessment of project suitability	
PF 12	Community development planning approach	
PF 13	Stakeholder analysis and engagement	
	- Classification - CMM	
	- training and sensitization	
	- Involvement	
PF 14	Research on similar projects Implemented	
PF 15	The use of appropriate technology	
PF 16	Accountability and transparency measures	

PF 17	Governance measures	
PF 18	Audit	
PF 19	Comprehensive project design.	
PF 20	Adequate funding for the implementation and sustenance of the project.	
PF 21	Comprehensive Procurement processes	
IF 1	Comprehensive and standard reporting tools	**IMPLEMENTATION PHASE**
IF 2	Implementation of project according to scope	
IF 3	Effective communication throughout all processes	
IF 4	Resource management	
IF 5	Transparency in implementation	
IF 6	Adequate project documentation	
IF 7	external auditing	
IF 8	Monitoring and evaluation of the project.	
IF 9	Risk management	
IF 10	Stakeholder management	
SF 1	Continuous functionality.	**SUSTAINABILITY PHASE**
SF 2	Appropriate siting of projects	
SF 3	Sustainability plan	
SF 4	Adherence to rural development policy	
SF 5	Good project coverage	
SF 6	Strong feedback mechanism	
SF 7	Appropriate costing and funding.	
SF 8	Community engagement and inclusion.	
SF 9	Cost recovery.	
SF 10	Appropriate technology.	
SF 11	Continuous support from implementer	
SF 12	Maintenance structure	
SF 13	Impact assessment	

Table 8.1, labelled the project phase factors gives a clear detail of the factors that sum up the structure of the development of the framework. PF, IF, and, SF, are used to classify planning factors, implementation factors and sustainability factors respectively. Table 8.1 put into consideration the entire framework which also includes the CMM. The factors related to planning, implementation and sustainability as presented in the table above, are the highest rated critical factors leading to successful rural development projects. Other unlisted factors and groups may depend on the nature, conditions, and locations of particular projects. These factors were derived from literature review, and the qualitative and quantitative findings. The phase factors were also validated and examined during the validation process.

The study identified 21 planning factors, of which strategic actions which entails taking the outlined goal of the project and adding the details needed to turn thoughts into actions, is primary. The other factors include: needs assessment, goal setting, community consultation, project identification and location, project baseline assessment, community engagement, community mobilization and awareness, determination of approach (preferably the bottom – up), participatory rural assessment, assessment of project suitability, community development planning approach, stakeholder analysis and engagement, research on similar projects implemented, the use of appropriate technology, accountability and transparency measures, governance measures, auditing, comprehensive project design, adequate funding for the implementation and sustenance of the project, and a comprehensive Procurement processes. These have been discussed during the research.

The implementation factors on the other hand include comprehensive and standard reporting tools, which are essential for the monitoring and evaluation of projects, as well as the implementation of projects according to scope. This ensures that the project is on track in terms of timeliness and resource management. Effective communication throughout all processes was also found to be important, especially among key stakeholders of the project. Resource management, transparency in implementation, adequate project documentation, external auditing, monitoring and evaluation, risk management, and stakeholder management serve as best practices to ensure successful implementation of rural development projects.

Continuous functionality of the project is only achievable if the project is appropriately sited, rural development policies are adhered to, if the project has good coverage, and most

importantly, if the project has a solid and realistic sustainability plan. A strong feedback mechanism during project implementation, which is possible through community engagement and inclusion would help project implementers to make improvements during the project life cycle. Other important factors for project sustainability include: appropriate costing and funding, cost recovery, appropriate technology, continuous support from implementers, a well-detailed maintenance structure, and impact assessment.

8.4 VALIDATION OF THE FRAMEWORK AND CAPABILITY MATURITY MODEL

The validation group session was held over ZOOM online call application on the 25th of May 2021 in line with present restrictions as a result of the COVID-19 pandemic. The session included seven (7) development practitioners drawn from the public sector and the international development space with multi-sectoral and multi-country experience.

The validation process sought to first and foremost ascertain the existence of key issues and gaps mentioned in the study, validate the appropriateness of the research methods utilised and validate the integrative framework and Capability Maturity Model developed. The meeting began with an introduction of the study, the aims and objectives, rapid presentation of key literature materials, research methodology, the data collection process, conceptual framework and the final proposed framework. After the presentation, the validation participants provided the following feedback;

1. The suitability and importance of the research: the interviewees generally agree that the research/development of the integrative framework needed to be conducted, and the topic is relevant in the development sector.
2. The reflection of trending sustainability issues in the thesis: these issues mostly include community ownership of development projects and issues around funding for the sustainability of projects.
3. The integrative nature of the framework, showing key stages of project activities and with possible utilisation for a wide range of multi-sectoral projects.

4. The novelty of the Capability Maturity Model: the participants indicated that Capability Maturity Model developed is new, and therefore a good addition to existing literature
5. The need to rearrange the planning section of the framework to have project selection come after project identification.
6. The need for future research to address the development of an integrative platform to aid seamless communication within project stakeholders.
7. All stakeholders must be jointly responsible for the project phases as this will ensure achievement of project outcomes and eventual sustainability.
8. For practical utilisation of the framework and Capability Maturity Model in the future, an independent and comprehensive manual must be developed for project implementers.

In conclusion, the validation group participants suggested a few changes to the framework and Capability Maturity Model, and subsequently validated the suitability of the integrative framework and CMM for the planning and implementation of sustainable rural development projects in Nigeria and by extension, sub-Saharan Africa.

CHAPTER NINE: CONCLUSION

9. INTRODUCTION

In this chapter, the value of the research is discussed. This chapter is aimed at drawing conclusions from the key findings of this study, according to the research questions initially established. The chapter proceeds with the main findings from the study based on which conclusions and implications are drawn. It then continues to provide recommendations for policy makers, project implementers and researchers. This chapter then discusses the limitations of the study, the study's novelty, and the contribution of the research to literature.

9.1 RESEARCH CONCLUSION

All the previous chapters of this thesis have paved the path in understanding sustainable rural development, establishing best practices for the planning, implementation and sustainability of rural development projects, and creating an integrative framework and CMM for the planning and implementation of these projects in Nigeria, with lessons for SSA. To achieve these, some research objectives were set out. They include:

I. Understand the concepts and theories relating to rural development projects.

II. Establish current practices obtainable in the implementation of rural development projects, including evaluation of methodologies systems, methodologies, processes and technologies involved.

III. Identify and evaluate the roles of the different actors and stakeholders involved in project implementation.

IV. Evaluate the inclusion and sustainability practices of rural-based projects.

V. Formulate an integrative framework and capability maturity model using the research findings to enhance the sustainability of rural development projects.

The framework met the objectives by including best practices and methodologies for project planning and implementation and ensuring inclusion and sustainability in rural development projects. The research went through stages of literature review, data collection, analysis, evaluation, discussion, validation, and testing to ensure the framework that was developed could be adoptable and appropriate for sustainable rural development projects in Nigeria and

SSA. Beyond the areas mentioned in this chapter, there are many opportunities for research to improve planning, implementation and monitoring practices for rural development projects in Nigeria and other sub-Saharan African countries.

9.2 SUMMARY OF MAIN FINDINGS

The aim of this research was to develop an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects in Nigeria. To achieve this broad aim, the research set out specific questions which include:

1. What are the concepts and theories relating to rural development projects?
2. What design, planning, implementation, monitoring and evaluation practices promote sustainable rural development projects?
3. Who are the stakeholders in rural development and how do their roles ensure sustainability?
4. What are the identified causes of rural development project failure and how can they be mitigated?

Based on the questions stated above, the following findings were made in the course of the research from the literature review, the interviews, and the questionnaire survey;

***Research question one**: What are the concepts and theories relating to rural development projects?*

The first research question was answered by achieving the first objective. In the second chapter of the study, the concepts relating to rural development projects were found to include the key words: sustainability, rurality, projects and project failure, development, rural development, and rural development projects. Through defining these terms, the key indicators for measuring sustainability were established, and utilized in the development of the framework. These indicators include: social sustainability i.e. impact on working conditions, compliance with international labor standards, social protection, etc.; financial sustainability which entails financing of follow-up activities, sources of revenue for all future operating and maintenance costs, etc.; institutional sustainability –which have to do with structures that allow the results of the action to continue; and environmental sustainability which considers the impact of the project on the environment (ILO 2010).

Chapter two of the thesis also reviewed the theories relating to rural development projects, such

as development theories (which help in understanding the best methods by which society may reach her desired changes), management theories (which form the basis for the successful implementation of projects), ethical theories and neo-classical theories. The research examined modernization theory as a lens through which sustainable rural development projects are carried out in Nigeria and to some extent SSA. Reviewing these theories exposed some existing gaps such as lack of inclusion and communication amongst stakeholders. Thus, the framework developed ensured that the existing gaps in theories were accounted for and contributions were made.

***Research question two**: What Design, planning, Implementation, Monitoring and Evaluation practices promote sustainable rural development projects?*

This research question was answered by achieving research objective two on establishing current practices obtainable in the implementation of rural development projects, including evaluation of methodologies, systems, processes and technologies involved; and objective four on evaluating the inclusion and sustainability practices of rural-based projects. On sustainability practices, the study established that many rural development projects do not define what sustainability means for projects implemented. Hence, it is difficult to determine if projects were sustained since clear indicators were not defined.

The study laid a foundation for the current methodologies and processes used in rural development projects in SSA. By this, the top-down, bottom-up and mixed approaches to sustainable development were discussed in chapter two. The questionnaire survey conducted also found that the top-down approach is mostly applied to rural development projects in Nigeria (chapter seven). Additionally, the planning and implementation best practices found from the qualitative findings in chapter six are community based activities such as community engagement, community mobilization, participatory rural assessment and the use of a community development planning approach Thus, the research employed quantitative methods and found these practices to not be common in Nigeria and SSA because the level of involvement of community members in rural development projects is relatively low.

***Research question three**: Who are the stakeholders in rural development and how do their roles ensure sustainability?*

In the third chapter of the thesis, the different stakeholders and their general roles in rural

development projects were discussed. In chapter six, these roles were particularly assessed with respect to projects in Nigeria, and chapter seven, the extent to which these stakeholders can positively or negatively affect rural development projects were analyzed. From the findings, the major stakeholders include State/Federal/Local Government, International NGOs, Local NGOs, Women Groups, Youth Groups, Community/traditional leaders, Religious leaders, and community members.

***Research question four**: What are the identified causes of rural development project failure and how can they be mitigated?*

In the qualitative analysis, some challenges were found to affect the design, implementation, monitoring and evaluation of sustainable development projects. These challenges include the following: poor planning, poor implementation, political interference, meagre funding, and lack of engagement of community members. The quantitative survey went further to analyze if these challenges influence sustainable development projects in the target areas, and the extent of their influence on the projects. The findings confirmed that the effect of these challenges on the design, implementation, monitoring and evaluation of sustainable development projects, on aggregate, is very high. Additionally, the qualitative and quantitative findings revealed the lack of inclusion of key stakeholders in implementation of rural development projects and other evidence of challenges that hinder the sustainability of rural development projects such as the use of substandard products; poor planning, implementation, monitoring and evaluation practices.

According to respondents, the identified gaps can be filled by 'checks and balances' which are procedures put in place to combat and prevent mistakes and errors that could occur during a project life cycle, multi-stakeholder monitoring, and inclusion of every other stakeholder in rural development projects.

By answering the research questions, the research was able to develop the integrative framework and capability model. The framework plotted all of the factors related to planning, implementation and sustainability as per their occurrence phase, and also illustrated the CMM, as seen in figure 31. The major findings from the framework were the demonstrations on the integrations of stakeholder participation in the phases of the project life cycle as well as the consideration of influencing factors (listed in table 11) in the rural development project life

cycle. By this additions, risks and challenges that could have resulted as a result of lack of stakeholder inclusion and factor integration will be addressed and resolved.

9.3 RESEARCH RECOMMENDATIONS

This research makes the following recommendations based on the findings summarized above:

1. A sustainable plan should be set in place for all types of projects to avoid misuse and abandonment after the primary completion of the project.
2. Rural community members should be sensitized before projects are implemented – if the community members show enthusiasm about the project, then it can be executed. Otherwise, the project may have a good start, but may end up not being sustainable over time.
3. The findings suggest that for a rural development projects to be successful, they must be community-led, for more effective monitoring.
4. Literature indicated that many Sub-Saharan African countries do not follow building codes for construction projects because of the prevalence of weak project implementation and monitoring. Thus, it is necessary for external monitors to be employed for every project to ensure that building codes are being followed.
5. Proper communication among stakeholders is essential for sustainable rural development projects to be carried out. This can be achieved through involving all stakeholders and ensuring that their opinions are heard. The varying viewpoints of stakeholders may lead to conflict. However, preparations should be made on ways to resolve conflicts when they occur.
6. The findings derived from the study suggest the importance of sensitization in aiding project acceptance. Hence, rural development projects should incorporate sensitization of beneficiaries early into project design.
7. Findings from the study indicate the need for stronger monitoring and evaluation at different stages of the project (when feasible). This is important to ensure that all aspects of the project are constantly aligned with project aim and to prevent the occurrence of corruption and favoritism.
8. Findings from OLS regression in the quantitative study proved that applying a bottom-up approach instead of a top down approach as pertaining to stakeholder involvement, aids

project success. These approaches tend to foster community ownership of projects implemented and thereby sustainability.

9. Finally, drawing from the qualitative study, rural development projects carried out may be more impactful if local materials available in the community may be used for project intervention. However, if materials are not available, they may be brought in from other communities. This is important because research has shown that an integrated implementation of rural development projects is more impactful.

9.4 FUTURE AREAS OF RESEARCH

Despite the depth covered by this research, there are more areas still to be explored. Researchers could build on this research by analyzing deeper, the role of government in project success/failure and reasons why the government has the most impact on rural development projects, and thus are primarily responsible for rural development failure. Researchers may wish to apply the new framework in practice and examine its limitations. Researchers may also wish to test the framework in specific SSA countries, and on specific development sectors. This practical implementation will allow others to adapt and enhance the framework and develop processes to implement it, and also make recommendations for its effective implementation.

Finally, researchers may wish to develop contractual guidelines and procedures to enhance this framework and improve stakeholder involvement and inclusion as well as other sections of the framework that might need improvements. The framework currently has no implementation guideline and it would be helpful to develop clear terms and conditions for its implementation.

9.5 NOVELTY AND CONTRIBUTIONS OF THE RESEARCH

Till date, literature suggests the absence of an integrative rural development framework that may be applied to different types of rural development projects in Sub-Saharan Africa. Hence, many rural development projects that have been implemented over the years have had to develop a framework to guide the project processes. However, many of these frameworks developed for individual rural development projects have gaps that have been highlighted in the first chapter of the research. The resultant effect of this has been the failure in implementing

sustainable rural development projects in most locations. This research focused on highlighting the current planning, implementation and sustainability practices in rural development projects in Nigeria, and went on to avail best practices adopted globally so as to create an adoptable integrative framework and CMM in Nigeria, which previously did not exist in literature. Hence this is the primary contribution of this research to the existing body of knowledge.

The key ideas gathered through the exploration of key concepts and theories in the literature review have complemented the methodological decisions made in answering the research questions. Chapter five of this thesis explored the methodological approach in conducting this research, as well as justifying the appropriate design for this research. Seeing the strengths and weakness of the interpretivist and positivist philosophy and the criticisms they have garnered, this study settled for the post-positivist research philosophy which opines that finding from research gives an approximate understanding of reality, and not an accurate understanding. Thus, the research also contributes to the body of knowledge in its novelty of approach, by applying the post-positivist philosophy in obtaining information from respondents on their understanding of sustainable rural development projects through quantitative and qualitative data (i.e. the mixed methodology design) to answer the research questions established in Chapter one of this thesis.

By collecting data from the six geo-political zones in Nigeria's rural areas - Nasarawa State (North Central), Ogun State (South West), Bayelsa State (South-South), Imo State (South East), Kaduna State (North West) and Borno State (North East) - the study was able to gather a wide range of first-hand opinions of community members (who share different cultural backgrounds) and their realities. This will be an important resource for project implementers to consider while designing rural development projects nationwide.

This research has contributed to the body in knowledge throughout the entire research process. At the inception of the thesis, research showed that a lot of emphasis had been placed on the development of urban areas even in academic works, which have consequently left a huge development deficit in terms of rural project research. By conducting a research centered on rural areas, this thesis contributes and bridges the gaps in literature on rural development. Additionally, in conducting an extensive literature review, theories were reviewed in chapter

two, such as the development theories, management theories, ethical theories and neo-classical theories. The research was able to make a contribution to literature by advancing the theories with logic and fact, as well as identifying several gaps in the theories which could lead to project failure if adopted. These gaps included mostly the lack of inclusion and communication amongst stakeholders. The identification of these gaps will be useful to other researchers and project implementers while deciding on the best theories to implement.

The qualitative findings discussed in chapter six of this thesis provided insights gained from project implementers majorly on factors that cause project failure, best practices in rural development projects, as well as ways to foster sustainability of rural development projects. The major contribution made from the qualitative study was the necessity of needs assessments at the inception of a project so as to ensure that the project is adequate and appropriate for the beneficiaries. The qualitative study also exposes the perception of stakeholders in rural communities in Nigeria and SSA, which is relevant for future research.

The in-depth findings from the quantitative data collection has demonstrated the barriers, issues, and displeasure behind the level of non-engagement and non-involvement of community members in rural development projects, a segment not often focused in previous studies. The community members that participated in the survey expressed that they would do a better job in managing and maintaining projects in their communities than the government if they are given the opportunity. Thus the research makes a valuable contribution by finding that the top-down approach, which is less effective, is more prevalently applied to rural development projects in Nigeria. Another valuable contribution is the confirmation that the government (who are the major project implementers) do not only have the most impact on the sustainability of a project but are also the most responsible for project failure. These are significant additions to the existing body of knowledge in project sustainability.

In this thesis, the integrative framework and CMM were developed based on the concepts and theories explored from the literature review as well as the findings gathered from both qualitative and quantitative research methods. The thesis is novel in the sense that it created a procedure through which the progressive steps of a project are captured to give foundation for continuous improvement through the CMM. The CMM may be utilized as a medium to

recognize which level a rural development project stakeholder operates in their contribution to rural development interventions. The final contribution of this research is the realization of the research aim in developing an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects in Sub-Saharan Africa, as shown in Figure 30. Although this framework is developed under Nigerian context, it can also be applied in other SSA countries sharing similar cultural and regional background. Therefore, it can be said that the development of this framework also has reduced the current gap in knowledge which is lacking in sustainable rural development. Accordingly, the outcomes from this research can be adopted for future educational or training use beneficial for project implementers or for theoretical understanding in academic programs. Specifically, the developed framework gives the National government an avenue to develop policy and make improved decisions for rural development.

This dissemination of conceptual knowledge in sustainable rural development will provide in-depth understanding among academia, policy makers, and students, which in turn will encourage the development of rural areas.

9.6 RESEARCH LIMITATIONS

While conducting this research, some limitations were encountered. However, these limitations did not affect the robustness of the work/findings reported in this thesis. Some of these limitations include:

9.6.1 Data Collection

In terms of data collection, it was difficult to get stakeholders, especially Government representatives related to rural development projects, to respond to the surveys for data collection or interviews for validation. This was because Nigerian government representatives are not usually transparent about activities related to development projects. In the first place, getting the contacts of respondents for the interviews was tedious, as most of this have to be done in person, and through various networks. This problem however was not present with the community members that provided data through the quantitative survey. Nevertheless, the time for data collection was sufficient because the responses received were up to the minimum response rate required for the research. The use of Content Analysis also made this easier.

Additionally, the inability of some respondents to recall knowledge of certain questions was a limitation to the study. Interviewer skills and approach through probing, helped in eliciting appropriate responses. Other limitations encountered during data collection included illiteracy, language and cultural barriers because some of the participants of the survey did not speak fluent English which affected communication.

A lot of time was also spent understanding the statistical methods of analysis and their suitability for the research. Another problem faced in the collection of data was the geography. This is because there was the financial constraint on traveling around the six geopolitical zones of Nigeria, seeing as it was the most productive way of getting responses.

9.6.2 The Framework

It was difficult to decide how the framework should be built or how it could work in achieving the aim of the research. The first version of the framework was unsuitable for measurement purposes, in that it failed to address the relevant factors that promote the sustainability of rural development projects. The insufficiency of prior research in the area contributed to the challenges faced, as there is not much literature discussing the integrative frameworks for rural development projects. Also, when developing the framework which had to be generic to all sectors of development as well as all SSA countries, there was the challenge of showing how the framework could be applicable to all areas. However, it was explained that other SSA countries exhibit the same socio-economic characteristics of Nigeria that continue to shape the policy environment in Africa such as its diverse population and size (OECD, 2020), and thus Nigeria could serve as a representative locale to gather data used in the development of an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects which can be used across Sub-Saharan African regions.

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APPENDIX 1: KII GUIDE AND DESCRIPTION OF CODES FOR QUALITATIVE STUDY

SEMI-STRUCTURED EXPERT INTERVIEW GUIDE

A. PLANNING AND IMPLEMENTATION PRACTICES

The aim of this section is to understand the planning and implementation practices obtainable in rural development projects.

1. What do you understand as Planning and Implementation of rural development projects?
2. In your opinion, what type of planning practices are obtainable in rural development?
3. Are you aware of any known standards/benchmark for the planning and implementation of rural development projects?
4. To the best of your understanding, can you please describe the development project life cycle?
5. What would you describe as the contributions of the Planning and implementation stages to the project life cycle?
6. Can you kindly explain in detail some of the factors that promote sustainable rural development projects at the implementation stage?
7. Is there any gap you have observed in the Planning and implementation stages of rural development projects? If yes, how can the identified gaps be filled?

B. STAKEHOLDERS INTEREST

This section is aimed at identifying the different stakeholders in rural development and how their roles ensure project success.

1. Who do you consider as major stakeholders in rural development (project planning and implementation)?
2. How do these stakeholders participate in the process of rural development?
3. Can you kindly elaborate in detail the influence these stakeholders hold in rural development?
4. Can you kindly describe in detail how the roles of these stakeholders ensure rural project sustainability?

5. Is there any noticeable gap in the roles the stakeholders play? How can the identified gaps be filled?
6. In your understanding does stakeholder inclusion promote sustainable rural development projects?

C. TOWARDS SUSTAINABLE RURAL DEVELOPMENT PROJECTS

The aim of this section is to determine the design, planning, monitoring and evaluation, implementation practices that promote sustainable rural development projects. The respondents will be expected to discuss from their experiences.

1. Can you kindly describe what you understand as sustainable rural development projects?
2. Have you been involved in the planning and implementation of any sustainable rural development project(s)? Please kindly elaborate on this project(s).
3. Can you describe in details the design, planning, implementation and, monitoring and evaluation practices employed to ensure project sustainability?
4. Is there any noticeable gap in the design, implementation and monitoring and evaluation stage? How can the identified gaps be filled?
5. Can you kindly explain in detail some of the factors that promote project sustainability at the design stage? How about the implementation stage? Can you identify this for the monitoring and evaluation stage?
6. What are your suggestions for best practice considering all the phases in a project life cycle?

D. ANALYSING RURAL DEVELOPMENT PROJECT FAILURE

The present failure of rural development projects calls for an analysis. This is to determine the root causes of rural project failure and also the development of a mitigation plan.

1. What in your opinion, is a failed rural development project?
2. Can you please explain in detail and elaborate on some of the causes of rural development projects failures?
3. Who do you think is responsible for bridging the identified gaps?
4. Can you kindly elaborate in details how the identified project failure can be mitigated against?

DESCRIPTION OF CODES FOR THE QUALITATIVE STUDY

SN	CODE	DESCRIPTION
1.	Planning	It seeks to give a detailed definition of planning for rural development projects
2.	Implementation	It seeks to give a detailed definition of implementation for rural development projects
3.	Planning Practices	Planning practices describes the common activities carried out during the rural development planning process
4.	Planning/Implementation Known Standards	This refers to benchmarks or standards that are used as guides during planning and implementation
5.	Project Life Cycle	This code seeks to gain understanding on the respondents' understanding of rural development project life cycle
6.	Contributions of the Planning and Implementation	i.e. the impact and contributions of the Planning and implementation stages to the project life cycle
7.	Factors that Promote Sustainable Rural Development Projects at the Implementation Stage	This code seeks to establish the factors that promote sustainable rural development projects at the implementation stage
8.	Gaps	I.e. gaps observed in the Planning and implementation stages of rural development projects and how the identified gaps can be filled
9.	Major Stakeholders	This code is aimed at identifying the different stakeholders in rural development
10.	Stakeholders Participation	This code is aimed at identifying how the roles of different stakeholders ensure project success.
11.	Sustainability	describe in detail how the roles of these stakeholders ensure rural project sustainability
12.	Project Failure	This is to determine the root causes of rural project failure
13.	Mitigation	This is to collect information on a mitigation plan for

		project failure.

APPENDIX 2: QUESTIONNAIRE SURVEY

Questionnaire No……

Participant Identifier……..

Informed Consent Form

This research seeks to develop an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects, with the aim of improving sustainable rural development projects in Nigeria, with lessons for Sub-Saharan Africa. The purpose of this document is to obtain your consent to participate in this research by …… Before doing so it is advised that this document should be read together with the participant information sheet.

Please initial

1. I confirm that I have read and understood the participant information sheet for the above research and have had the opportunity to ask questions ☐

2. I understand that my participation is voluntary and I am free to withdrawal anytime without giving a reason, except where data obtained ☐
   Has been processed and analysed anonymously, and has become impossible to retrieve.

3. I understand that all the information I provide will be treated in confidence ☐

4. I understand that I also have the right to change my mind about participating in the research for a short period after the research has concluded ☐

5. I agree to take part in the research project ☐

Name of participant: ……...

Signature of participant: …….……

Date: ……..

Participant Information Sheet

Information about the project/Purpose of the project

This research seeks to develop an integrative framework and capability maturity model for the planning and implementation of sustainable rural development projects, with the aim of improving sustainable rural development projects in Nigeria, with lessons for Sub-Saharan Africa.

The approximate duration it will take to complete this questionnaire is **30-45 minutes**

Why have I been chosen?

You have been chosen to participate in this research because you are a stakeholder in rural development projects. Therefore, you have access to the kind of information required in conducting this research.

Withdrawal options

Although participation is voluntary, participants cannot withdraw after data has been anonymously collected and analysed. Also, data collected can be used for publication purposes.

Do I have to take part?

Participation in this research is not compulsory and completely voluntary.

What are the risks associated with this project?

The identified risk of data security will be managed by ensuring only the researcher has access to the data collected, which will be deleted once analysis is completed. Furthermore, the names of the participants and the institution will not be mentioned in the research.

Data protection & confidentiality

Data collected will be treated with high security and confidentiality. They will be stored where only the researcher can gain access during the course of the research. At the end of the research, all data collected will be destroyed.

What will the survey be used for?

The results of the research will be used for drawing conclusions on the following:

- The methodologies, systems, processes and technologies involved in the Design, Implementation, Monitoring, Evaluation and Supervision of projects and programmes targeted at people living in rural and underserved areas;
- The current practices obtainable in the implementation of rural development projects;
- The roles and inclusion of the different actors and stakeholders involved in project implementation;
- The applicability and relevance of the integrative framework developed for implementation of sustainable rural development projects.

For further details or enquiries kindly contact the person below:

Babatunde David,
+234 809 555 0361, +234 807 477 8971
Tundedavid27@yahoo.com

Please tick [√] below if you agree to participant in this survey:

[ ] I agree to take part in this research, and understand that it is entirely anonymous

DEMOGRAPHIC INFORMATION

STATE:

……

LGA:

……

COMMUNITY NAME:

……

GENDER OF RESPODENT

……

AGE OF RESPONDENT

CATEGORY OF RESPONDENT:

Please tick [√] below:

1. Community Leader □
2. Traditional Leader □
3. Civil Society Organisation □
4. Religious Leader □
5. Community Member □

Part 1: INVOLVEMENT IN RURAL DEVELOPMENT PROJECTS

Rural development projects are projects aimed at improving the quality of life and economic well-being of people living in rural areas. They include projects on education, water and sanitation, road construction, agriculture, electricity and health care.

Please tick [√] below:

Q1. What is your understanding of Sustainable Rural Development Projects?

Please tick [√] below:	**Yes**	**No**
Projects that last over a long period of time	□	□
Projects that ensure social and economic development	□	
Projects that meet the needs of the beneficiaries	□	□
Projects that ensure environmental protection and preservation	□	□
Projects that ensure social inclusion	□	□
Projects that can finance future operating and maintenance costs	□	□

Q2. Are you aware of rural development projects in your community?

1. Yes □
2. No □

Q3. Have you been involved in the planning and implementation of any sustainable rural development project(s)?

1. Yes □
2. No □

Q4. If Q3 is yes, what project have you been involved in?

1. Water and sanitation □
2. Healthcare □
3. Agriculture □
4. Road □
5. Education □

6. Other(s) (please specify) ……..

Q5. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of awareness of your community regarding the various stages involved [see below] in the planning and implementation of sustainable rural development projects. Please tick [√] below:

Awareness	**1**	**2**	**3**	**4**	**5**
Project identification	□	□	□	□	□
Project location	□	□	□	□	□
Project planning and formulation	□	□	□	□	□
Project implementation	□	□	□	□	□
Project monitoring	□	□	□	□	□
Project maintenance	□	□	□	□	□

Q6. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of consultation of your community regarding the various stages involved [see below] in the planning and implementation of sustainable rural development projects Please tick [√] below:

Consultation	**1**	**2**	**3**	**4**	**5**
Project identification	□	□	□	□	□
Project location	□	□	□	□	□
Project planning and formulation	□	□	□	□	□
Project implementation	□	□	□	□	□
Project monitoring	□	□	□	□	□
Project maintenance	□	□	□	□	□

Q7. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of input /involvement in decision making of your community regarding the various stages involved [see below] in the planning and implementation of sustainable rural development projects Please tick [√] below:

Input /involvement in decision making	1	2	3	4	5
Project identification	□	□	□	□	□
Project location	□	□	□	□	□
Project planning and formulation	□	□	□	□	□
Project implementation	□	□	□	□	□
Project monitoring	□	□	□	□	□
Project maintenance	□	□	□	□	□

Part 2: PLANNING AND IMPLEMENTATION PRACTICES

Q8. Which of the following approaches is prevalent in your community?

Please tick [√] below:	Yes	No
Top down approach (decisions taken by implementers)	□	□
Bottom up approach (decisions taken by beneficiaries)	□	□

Q9. Which of the following approaches is more effective towards the delivery of sustainable rural development projects?

Please tick [√] below:	Yes	No
Top down approach (decisions taken by implementers)	□	□
Bottom up approach (decisions taken by beneficiaries)	□	□

Q10: Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) how these challenges [see below] have affected the design, implementation, monitoring and evaluation of sustainable rural development projects Please tick [√] below:

Sustainable Rural Development Projects' Challenges	**1**	**2**	**3**	**4**	**5**
Poor planning	□	□	□	□	□
Poor implementation	□	□	□	□	□
Political interference	□	□	□	□	□
Poor funding	□	□	□	□	□
Poor engagement of community members	□	□	□	□	□
Other (Please specify)	□	□	□	□	□

Q11.Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) how these factors [see below] promote sustainable rural development projects, at the implementation stage. Please tick [√] below:

Factors that promote sustainable rural development projects	**1**	**2**	**3**	**4**	**5**
Appropriate technology	□	□	□	□	□
Community acceptance	□	□	□	□	□
Stakeholder engagement	□	□	□	□	□
Appropriateness of project	□	□	□	□	□

Part 3: STAKEHOLDERS INTEREST

Stakeholders are persons with interest or concern in rural development projects.

Q12. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of participation of these stakeholders [see below] in the planning of rural development projects. Please tick [√] below:

Stakeholders in Rural Development Projects.	**1**	**2**	**3**	**4**	**5**
Government	□	□	□	□	□
Development partners (INGOs, LNGOs)	□	□	□	□	□
Civil society organizations	□	□	□	□	□
Traditional/ Community leaders	□	□	□	□	□
Community members	□	□	□	□	□
Religious institutions	□	□	□	□	□
Private sector	□	□	□	□	□
Other	□	□	□	□	□

Q13. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of participation of these stakeholders [see below] in the implementation and management of rural development projects. Please tick [√] below:

Stakeholders in Rural Development Projects.	**1**	**2**	**3**	**4**	**5**
Government	□	□	□	□	□
Development partners (INGOs, LNGOs)	□	□	□	□	□
Civil society organizations	□	□	□	□	□
Community leaders	□	□	□	□	□
Traditional/ Community members	□	□	□	□	□
Religious institutions	□	□	□	□	□
Private sector	□	□	□	□	□
Other	□	□	□	□	□

Q14. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of participation of these stakeholders [see below] in the evaluation of rural development projects. Please tick [√] below:

Stakeholders in Rural Development Projects.	**1**	**2**	**3**	**4**	**5**
Government	□	□	□	□	□
Development partners (INGOs, LNGOs)	□	□	□	□	□
Civil society organizations	□	□	□	□	□
Traditional/ Community leaders	□	□	□	□	□
Community members	□	□	□	□	□
Religious institutions	□	□	□	□	□
Private sector	□	□	□	□	□
Other (please specify)	□	□	□	□	□

Q15. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level of impact of these stakeholders [see below] in ensuring sustainability of rural development projects. Please tick [√] below:

Stakeholders in Rural Development Projects.	**1**	**2**	**3**	**4**	**5**
Government	□	□	□	□	□
Development partners (INGOs, LNGOs)	□	□	□	□	□
Civil society organizations	□	□	□	□	□
Traditional/ Community leaders	□	□	□	□	□
Community members	□	□	□	□	□
Religious institutions	□	□	□	□	□
Private sector	□	□	□	□	□
Other (please specify)	□	□	□	□	□

Part 4: ANALYSING RURAL DEVELOPMENT PROJECT FAILURE

A project is considered a failure when it has not delivered what was required, in line with expectations, especially when it fails to meet the needs of its beneficiaries.

Q16. What is the completion status of the rural development project?

Please tick [√] below:	**Yes**	**No**
Mobilization of contractor to site	□	□
Completion of sub-structure	□	□
Completion of super-structure	□	□
Commissioning / hand-over of project	□	□

Q17. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the level to which the rural development project meets the needs of end users/community members. Please tick [√] below:

	1	**2**	**3**	**4**	**5**
	□	□	□	□	□

Q18. Please rank the following factors [see below] on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) as causes of rural development projects' failure. Please tick [√] below:

Factors that cause rural development project failure	**1**	**2**	**3**	**4**	**5**
Failure to meet the needs of the community	□	□	□	□	□
Lack of a sustainable plan	□	□	□	□	□
Political interference	□	□	□	□	□

Poor funding	□	□	□	□	□
Lack of a sustainability plan	□	□	□	□	□
Poor engagement of community members	□	□	□	□	□
Inappropriateness of location	□	□	□	□	□
Absence of facility users committee	□	□	□	□	□
Other (please specify ……)	□	□	□	□	□

Q19. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) who is responsible for failure of rural development projects. Please tick [√] below:

Stakeholders in Rural Development Projects	**1**	**2**	**3**	**4**	**5**
Government	□	□	□	□	□
Development partners (INGOs, LNGOs)	□	□	□	□	□
Civil society organizations	□	□	□	□	□
Traditional/ Community leaders	□	□	□	□	□
Community members /beneficiaries	□	□	□	□	□
Religious institutions	□	□	□	□	□
Private sector	□	□	□	□	□
Other	□	□	□	□	□

Q20. Please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) your level of satisfaction with the state of the project(s). Please tick [√] below:

	1	**2**	**3**	**4**	**5**
	□	□	□	□	□

Part 5: TOWARDS SUSTAINABILTY OF RURAL DEVELOPMENT PROJECTS

Sustainability of rural development projects means that the available desired facilities and resources of the projects do not diminish in due course.

Q21. In your opinion, can the project be maintained and sustained? Please tick [√] below:

1. Yes □
2. No □

Q22. If your answer in Q21 is yes, please indicate on a scale of 1-5 (1= very low, 2= low, 3= moderate, 4= high & 5 = very high) the extent to which the project(s) can be sustained. Please tick [√] below:

	1	**2**	**3**	**4**	**5**
	□	□	□	□	□

Q23. What are your suggestions for ensuring sustainable rural development?

Please specify:

……

……

Additional Comments for the research:

Q24. Please provide below additional comments you wish to offer

……

……

APPENDIX 3: OLS REGRESSION RESULTS

Dependent Variable: SUSTAINABILITY
Method: Least Squares
Date: 04/14/21 Time: 10:33
Sample: 1 404
Included observations: 398

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.707920	0.522941	9.002772	0.0000
PREVALENT_APPROACHES	-0.574587	0.265246	-2.166239	0.0309

R-squared	0.011711	Mean dependent var	3.580402
Adjusted R-squared	0.009216	S.D. dependent var	1.012425
S.E. of regression	1.007750	Akaike info criterion	2.858329
Sum squared resid	402.1615	Schwarz criterion	2.878362
Log likelihood	-566.8075	Hannan-Quinn criter.	2.866264
F-statistic	4.692590	Durbin-Watson stat	0.766005
Prob(F-statistic)	0.030889		

Dependent Variable: SUSTAINABILITY
Method: Least Squares
Date: 04/14/21 Time: 15:39
Sample: 1 404
Included observations: 404

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.956938	0.239737	8.162860	0.0000
APPROPRIATE_TECHNOLOGY	0.389745	0.055929	6.968590	0.0000

R-squared	0.107779	Mean dependent var	3.594059
Adjusted R-squared	0.105560	S.D. dependent var	1.015300
S.E. of regression	0.960218	Akaike info criterion	2.761625
Sum squared resid	370.6514	Schwarz criterion	2.781434
Log likelihood	-555.8483	Hannan-Quinn criter.	2.769467
F-statistic	48.56125	Durbin-Watson stat	0.881432
Prob(F-statistic)	0.000000		

Dependent Variable: SUSTAINABILITY
Method: Least Squares
Date: 04/14/21 Time: 15:45
Sample: 1 404
Included observations: 404

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.421132	0.228725	10.58533	0.0000
APPROPRIATENESS_OF_PROJE	0.287189	0.054707	5.249612	0.0000

R-squared	0.064155	Mean dependent var	3.594059
Adjusted R-squared	0.061827	S.D. dependent var	1.015300
S.E. of regression	0.983412	Akaike info criterion	2.809361
Sum squared resid	388.7740	Schwarz criterion	2.829170
Log likelihood	-565.4910	Hannan-Quinn criter.	2.817203
F-statistic	27.55843	Durbin-Watson stat	0.828770
Prob(F-statistic)	0.000000		

Dependent Variable: SUSTAINABILITY
Method: Least Squares
Date: 04/14/21 Time: 15:49
Sample: 1 404
Included observations: 404

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.041225	0.242910	8.403207	0.0000
COMMUNITY_ACCEPTANCE	0.378375	0.058017	6.521737	0.0000

R-squared	0.095680	Mean dependent var	3.594059
Adjusted R-squared	0.093431	S.D. dependent var	1.015300
S.E. of regression	0.966707	Akaike info criterion	2.775095
Sum squared resid	375.6777	Schwarz criterion	2.794904
Log likelihood	-558.5691	Hannan-Quinn criter.	2.782936
F-statistic	42.53305	Durbin-Watson stat	0.873114
Prob(F-statistic)	0.000000		

Dependent Variable: SUSTAINABILITY
Method: Least Squares
Date: 04/14/21 Time: 15:33
Sample: 1 404
Included observations: 404

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.986500	0.209966	14.22373	0.0000
STAKEHOLDER_ENGAGEMENT	0.153409	0.051490	2.979412	0.0031

R-squared	0.021605	Mean dependent var	3.594059
Adjusted R-squared	0.019171	S.D. dependent var	1.015300
S.E. of regression	1.005520	Akaike info criterion	2.853825
Sum squared resid	406.4506	Schwarz criterion	2.873634
Log likelihood	-574.4728	Hannan-Quinn criter.	2.861667
F-statistic	8.876897	Durbin-Watson stat	0.795737
Prob(F-statistic)	0.003063		