INFLUENCE OF INFRASTRUCTURAL PROJECTS ON SOCIO-ECONOMIC DEVELOPMENT AMONG THE RURAL DWELLERS OF POKOT SOUTH SUB COUNTY, WEST POKOT COUNTY, KENYA

John Karamunya Limakamar.

A Research Project Report Submitted in Partial Fulfilment of the Requirements of the Award of Degree Master of Arts in Project Planning and Management of the University of Nairobi

DECLARATION

I declare that this research project report is my original work and has not been presented to any other university.

..... …….....

John Karamunya Limakamar Date

L50/83917/2016

This research project report has been submitted for examination with my approval as the university supervisor.

....

Dr. Patrick Simiyu Cheben Date

Lecturer,

Department of Open and Distance

School of Open and Distance Learning,

University of Nairobi

DEDICATION

I dedicate this piece of work to my lovely family

ACKNOWLEDGEMENT

Nothing can be realized without help. I'm indebted to my supervisor Dr. Patrick Cheben for according me professional advice that motivated me to successfully develop this research project report. Secondly I thank the University of Nairobi management for introducing External Degree programme that created an opportunity for me to pursue the degree of Master of Arts in Project Planning and Management in the regional Centre. Thirdly, I acknowledge the help of my family members especially my wife Teresa Karamunya for her moral and material support. Last but not least, I wish to thank the respondents of this study for contributing to the development of this research project report.

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LIST OF ABBREVIATIONS AND ACRONYMS

ADB…….. Asian Development Bank

ANOVA…… Analysis of Variance

AUC…….. African Union Commission

IEBC……. Independent Electoral and Boundaries Commission

KeNHA……. Kenya National Highways Authority

KeRRA…… …….Kenya Rural Roads Authority

KRB…….. Kenya Roads Board

KURA……... Kenya Urban Roads Authority

KWS……. Kenya Wild Service

MDGs…….....Millennium Development Goals

MNCs…… Multinational Corporations

NACOSTI……. National Council of Science, Technology and Innovation

NGOs…… Non-Governmental Organization

PIDA……...Programme for Infrastructure Development in Africa

S.D.F……. SocialDevelopment Factors

SPSS……. Statistical Packages for Social Sciences

UNRA……Uganda National Roads Authority

ZDA……Zambia Development Authority

ABSTRACT

Globally, infrastructure investment projects promote socio-economic development. In rural areas such projects often results in a number of benefits. The purpose of the study was to assess the influence of infrastructural projects on socio-economic development among the people of Pokot South Sub-County in West Pokot County. More specifically, the study sought to establish influence of road network projects on socio-economic development of the rural dwellers in Pokot South Sub County, to assess the influence of water supply on socio-economic development of the residents of Pokot South Sub County, establish the influence of power supply projects on socio-economic development of the residents of Pokot South Sub County and establish the influence of housing projects on socio-economic development of the people of Pokot South Sub County. Based on the objectives of the study, a descriptive survey study design was adopted to guide investigation. The Main data collection tools were research questionnaire and interview schedules which were administered to selected residents in the sub county. Simple random sampling technique (with the help of the random table) were applied in selecting respondents in each household. The sample size comprised of 315Pokot South residents. Data was analyzed using the Statistical Packages for Social Sciences (SPSS) and is presented in tables and charts for ease of understanding. The findings point out that 30% of the respondents held views that there were sufficient road network in the sub-county. Further, 54% of them agreed to have witnessed construction of new roads and/or repairing of existing ones and 54.9% of the respondents alluding that the county government and national government were the main contractors. It was also evident that 40.5% of the respondents termed the electricity connection in the Sub-County as poor and only 15.9% were beneficiaries of Rural Electrification Programme.31.4% of the respondents had experienced the construction of new water points or repairing of the existing ones in the area. It was further established that development of infrastructural projects in the Sub-County had opened up most of the areas which were inaccessible and as a result improving communication and security in the whole area. The study makes recommendation that government need to speed up the implementation of Rural Electrification Programme to reach most the rural dwellers in the Sub-County and the need for the county government to collaborate with other players such as NGOs and other well-wishers in the provision of ample and affordable housing facilities and construction of safe water points such as drilling of boreholes.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally, investments initiated towards the development of infrastructural projects often boost the socio-economic growth of the targeted community, ADB(2017). This is seen particularly in disaster prone and rural areas where the re-construction and re-designing of the required community infrastructure is a vital component for recapture, continued socio-economic development and poverty reduction among the local dwellers(Humanity, 2017). Most of the infrastructural development projects contribute to the building of physical infrastructure particularly in the rural areas which are traditionally marginalized(Wanyama, 2016). This helps impoverished and rural communities improve their quick access to essential facilities such as schools and housing, water supply services utilizing local skilled and un-skilled labour during construction.

Infrastructural development usually comprises of tapping in place structures that are necessary for the operation of a society: this refers to arrangements such as, but not limited to road networks, water supply lines, sewerage systems, electricity lines, tele-communications networks, and renewable energy. In Pakistan for instance, through a program termed “Integrated Approach towards Rebuilding Pakistan Program" various infrastructure development projects such as housing constructions, provision of sanitation and basic hygiene, water sources identification, purification systems for

clean water were initiated in the year 2011(Humanity, 2017) and was being implemented in 11 Union Councils of Pakistan.

As observed by Mutume G, (2002), Africa lags behind the rest of the world in all aspects of infrastructure development in terms of quality, quantity, cost and access; these are associated with issues such as untapped natural resources both human and material resources, numerous ethnic conflicts and wars, and lack of political will by the concerned governments. For instance, in 1997, the African continent excluding South Africa had a total of 171, 000 kilometers of paved roads which compared to Poland, is about 18%.

Programme for Infrastructure Development in Africa (PIDA) was fronted so as to initiate a vision and tactical policy for the development of regional and continental infrastructure in the continent(ADB, 2017). Its overall goal is to promote socio-economic development and poverty reduction in Africa through improved access to integrated regional and continental infrastructure networks and services. The programme was initiated by African Union Commission (AUC) and the African Development Bank with its secretariat being NEPAD. Among the key infrastructural issues that were to be tackled include the deficit in Africa's infrastructural development which results to increased production and transaction costs, reduced business competitiveness within the continent and the foreign global players, negative influence on direct flow of foreign investment to the continent resulting therefore in affecting the rate of economic and social development on the continental inhabitants (ibid).

The Government of Zambia has prioritized infrastructure development and this is ratified in both the country's 5^{th} and 6^{th}National Development Plan, as well as in the

National Vision 2030(ZDA, 2015):this is based on the fact that infrastructure is akey driver and moderator of competitiveness which is critical for ensuring the effective functioning of any economy. Zambia has a fundamental reliable infrastructure spread across all the regions such as airports and airstrips, road networks, railway lines, energy generation and its transmission installations and telecommunication infrastructure among others.

1.2: Statement of the Problem

Infrastructural advancement is the prerequisite that spurs development of any country. Ample transport systems, adequate telecommunication channels, energy/grid**,** water supply, health provision, housing facilities and educational facilities are part and parcel of human existence(P Srinivasa Rao, 2013). Infrastructural developmentsare essential to families' livelihood as well as to the social and economic activitiesin a country. Infrastructure plays an important role in promoting both social and economic growth greatly contributing to the reduction of economic disparity among the individual households, poverty levels and deprivations in any given country. It need to be conceptualized that greater access among the poor and marginalized to the educational and health-care services, water and sanitation services, roads and electricity brings equitable development and social empowerment among the residents as it ispre-condition for sustainable socio-economic development.

(P Srinivasa Rao, 2013)further points out that infrastructural investments in transport sector, power supply, irrigation establishments, electricity generation, scientific researches and training advancement, developing and identification of markets and storage facilities for the community produce, establishment of education and health facilities and family social welfares often plays a strategic role though in-direct in the

development process of the incumbent and future societies. It also makes a contribution towards growth of the per capita income by accumulative output in the production method.

Proper infrastructural development projects in rural areas are of benefit to the rural dwellers in that, it leads to construction of descent homes and houses in the most suitable way and this in general saves the destitute individuals such as those affected by calamities and marginalization; lowers the sufferings and torture of the most vulnerable sections of the society especially the needy people which includes widows, orphans, landless, elderly and the sick; it also creates a sense of ownership with proper public involvement process and it generates timely employment opportunities for professionals in different fields.It is from this that the study intended to investigate the influence of infrastructural projects on social economic development.

1.3 Purpose of the Study

The purpose of this study was to investigate the influence of infrastructural projects on socio-economic development among the residents of rural parts of Pokot South Sub County in West Pokot County.

1.4 Objectives

The objectives of the study were:

i) To establish how road network projects influence the socio-economic development of the rural dwellers of Pokot South Sub County.

ii) To determine how power supply projects influence the socio-economic development of the rural dwellers of Pokot South Sub County.

iii) To assess how water supply projects influence the socio-economic development of the rural dwellers of Pokot South Sub County.

iv) To determine how housing projects influence the socio-economic development of the rural dwellers of Pokot South Sub County.

1.5 Research Questions

The study sought to answer the following research questions:

i) How does road network projects influence the socio-economic development of the rural dwellers of Pokot South Sub County?

ii) How does the power supply projects influence the socio-economic development of the rural dwellers of Pokot South Sub County?

iii) How does the water supply projects influence the socio-economic development of the rural dwellers of Pokot South Sub County?

iv) How does the housing projects influence the socio-economic development of the rural dwellers of Pokot South Sub County?

1.6 Significance of the study

The importance of the investigation is divided in to two major categories; that is in its applied form and academic form. In its applied form, the sub county development committee may find it important as the information obtained from the study may greatly help the office in identifying the benefits of infrastructural projects on socio-economic development of the residents of the Pokot South Sub County. Residents of Pokot South Sub County may also benefit from the study in that recommendations of the study may highlight various issues which may help them appreciate their

participation in infrastructural projects in the area. This is especially when the study could points out various benefits an individual resident may get from the already initiated and/or completed projects.

In its academic form, other researchers wishing to do a further research in the study area or in other sub counties may use the information that could from the study as the findings may be availed in the libraries for future reference and consultations. The study may establish behaviors and attitudes of the rural dwellers towards infrastructural projects.

1.7 Limitations of the Study

This study experienced the following limitations which are of political, social, psychological and economic in nature. They included: first, the respondents sampled were not quick in responding to the administered questionnaire and interview schedule given the nature of the questions which somehow touched on their personal life. Secondly, some of the information requested deemed sensitive by the concerned officials and thus denied to the researcher as they thought the investigation was spying on them.

To address the above limitations, the researcher obtained a research permit that enhanced rapport with the respondents and requested them to complete and submit the questionnaires on their own within the stipulated time and ensured that interview appointments are sought on time.

1.8 Delimitations of the Study

This study acknowledges the fact that there are massive projects that have direct impact on the socio-economic developments of the rural dwellers of Pokot South Sub County and Kenya at large. However, this study only focused on infrastructural projects namely; road network, water resource, housing and power supply within the rural parts Pokot South Sub County. The study was only restricted to the rural dwellers of the said Sub-County.

1.9 Assumptions of the Study

The following assumptions were made:-

i. There are infrastructural projects (Road networks, Water Supply, Housing and Power supply) in rural parts of Pokot South Sub County.
ii. The rural dwellers of Pokot South Sub County will provide information required by the researcher willingly without any form coerce or prejudice.

1.10 Definition of Significant terms

Housing Development: - In this study, this refers to construction of housing units preferably by government agencies

Influence: -in this study, this refers to the impact brought about by infrastructural projects.

Infrastructural projects: - in this study, this refers to the projects that necessitate the growth rural dwellers economically or socially and can physical be seen/felt.

Power Supply: - in this study, this refers to the provision energy services to the rural people.

Road Network: - in this study, this refers to the construction of roads whether paved or non-paved.

Rural Dwellers: - in this study, this refers to the individual residents residing in rural areas.

Socio-Economic Development: - in this study, this term refers to a process of changes in the socio-economic structure of the rural dwellers such as rising income, or improving health and education status.

Water Supply: - in this study, this refers to provision of water resources to the rural residents.

1.11 Organization of the Study

This study is organized into five chapters. Chapter one deals with the introduction of the problem up to definition of basic terms as conceptualized in the study. Chapter two reviews the relevant information relating to the study, chapter three explains the methodology that was employed in the study to realize the objectives, chapter four discusses the analyzed study findings and chapter five shows summaries and conclusions of the study findings as well as offers the research recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter deals with the thorough review of the various scholars who have written on the impact of infrastructural projects on socio-economic development. Infrastructure plays an important and unforeseen task in the expansion course through its input to accumulative yield of issues. Its primary role being promotion of social and economic growth. Growth often has an indirect influence on socio-economic development and infrastructure helps to improve the socio-economic development of the rural dwellers. This review is divided into the following sections; concept of socio-economic development, road network and socio-economic development, water supply and socio-economic development, power supply and socio-economic development, housing and socio-economic development, conceptual framework, theoretical framework, summary on literature reviewed and Knowledge gap.

2.1 Concept of Infrastructural Projects and Socio-Economic Development

Socio-economic development is the course of social and economic upward adjustments in a society. The indicators for social adjustment/development can be measured through life prospect, knowledge level and levels of engagement. Other indicators include modifications in non-tangible factors, such as personality, freedom of expression and association, personal protection and freedom from distress of bodily harm, and the extent of involvement by the societal actors. Development of infrastructural projects enhance the accessibility of the rural dwellers who

areadversely cut off due marginalization to social services and other related amenities such as proper health care services and access to education thus improving their economic opportunities(Africa Development Bank, 2017). It also widens the access of the rural folks to markets be it local or international and livelihood activity which results in improved earnings for the rural poor including poor women and other disadvantaged groups.

Infrastructure is made-up of capital merchandises which are not disbursed and used directly by the targeted community members as they offer services in amalgamation with labour and other inputs(Prud'homme, 2005). Rural infrastructure projects often creates several direct and indirect social and economic developmental influences. For instance, a rural road project when constructed may result in improved and easy mobility within the society, development of numerous activities such growth and sprout of businesses along the said roads, and a decline in poverty rates. Further, initiation of unique programmes for marginal and small farmers in rural Kenya also results in various direct and indirect benefits in the form of improvised and modern farming practices, advanced repayment performance and increased output, employment, self-reliance and ample family well-being.

Infrastructural projects are frequently categorized into two: economic infrastructural projects and social infrastructural projects. The dissimilarity is a resultant of the basis of their variances in the construction process(Bhalla, 2002). Economic infrastructural projects result in services that directly necessitate and are fundamental to the carrying out of a wide variety of economic activities. Taking examples of rural infrastructural projects this includes but not limited to investments that directly and indirectly have an impact on productivity in agricultural and other rural non-farming activities. Such projects include investments in rural electrification; rural roads network systems,

markets for inputs and outputs, storage structures and warehousing facilities, common property resources, and watershed development. On the other hand, social infrastructural projects include activities like access to better schools, primary health centres, safe piped drinking water, and sanitation, pavement of streets and building of community centres. It's however important to note that investment in economic infrastructure primarily plays a complementary role in increasing productivity of existing assets, generating more employment for labour and providing increased access to urban markets including labour markets. Investment in social infrastructure results in creating a healthy working environment as well as facilitating human capital formation in rural areas, (ibid).

2.2 Road Network and Socio-Economic Development

In a survey by Levy (1996) who sought to examine "the socio-economic impact of improvements to rural roads in Morocco", using a time span research design, he compared the circumstances in the parts of the project roads,5 to 10 years after roads' end to the state of affairs past to enhancements ("before-after" the project), and to the situations in contrast to the roads that were positioned adjoining and were not subject to perfections during the period ("with-without" the project). This survey revealed the importance associated with tarmacking of rural roads that extends far beyond the enhancement of road use effectiveness in terms of low cost and better quality of transport services. Such prolonged benefits may include a paradigm shift in agronomic production service, including higher farm produce, amalgamation of agricultural output mix from low-value traditional cereals to high-value modern horticulture, and increased use of modern farming methods, specifically the use of fortified fertilizers.

The study also found out that there were cases of increased accessibility to education services and healthcare facilities where enrolment rates rose tremendously among country education centres, as well as advanced rate of visits to health care services. This in turn forced the government to hire more personnel to staff schools and health centers. It also saw an enlarged feminine admission rates in primary schools in the project zone later after the project had been completed. Again, there was a constructive response from greater rural yearly returns possibly backed to reverse causation. This tremendously reduced the case of poverty among both the small and marginal farmers as a result of road network projects in the country, (ibid).

Transport services especially the use of roads are essential to Africa's sustainable socio-economic development. Efficient mobility and timely accessibility to goods and services often requires well maintained, safe and reliable, secure and affordable transport system. However, in Africa, this is not the case with most African countries as the system is relatively underdeveloped and inadequate(Clos, 2011).Road transport in Africa is the most common mode of motorized transportation which ferries80% of the goods traffic and 90% passenger traffic on the continent. UNECA, (2009) observes that in 2005, only 22.7% of the total African road network had been tarmacked thus rendering most of the continent experiencing huge costs associated with transportation.

In the Uganda, the total road network coverage comprises of 20,000kms national roads, 13,000kms district roads, 2,800 Kms urban roads and about 30,000kms community roads. These roads serve to open up communities and districts and link the land locked Uganda to her neighboring countries, (URSSI, 2012). To strengthen the road sector in Uganda, the government created the Uganda National Roads Authority

(UNRA) which is mandated for the management, operation, development and maintenance of the country's classified road network; this was made possible under the Uganda National Roads Authority Act that was passed by parliament in 2006. The core business of UNRA being the running of road network in terms of preservation and expansion works, the Authority also is responsible for the management of ferry services. The authority is also supposed to provide required technical advice to other road agencies when need be, (ibid)

Kenya has a total of 99,970 miles of roads with about 6,953 miles tarmacked. In particular, the road network in Kenya is classified in to following categories namely: International Trunk Roads which links internationally importance centers and transnational boundaries or end at international ports or airports and covers a total of 3,588 Kilometers. National Trunk Roads which link locally important centers and covers a distance of 2,645 kilometers. Primary Roads which links regionally essential centers to each other or to higher class roads (e.g. Sub-County headquarters) and covers a total of 7,857 kilometers, Secondary Roads which links locally important centers to each other, or to more important centers or to a higher class road (e.g. divisional headquarters) and covers a total of 10,721 kilometers, Minor Roads which links to a minor centers and covers a total of 26,649 kilometers, (KRB, 2015).

KRB, (2015) report points out further that based on the Kenya Vision 2030,the country is primarily intersected via a linkage of roads, railways, ports, airports, water ways and telecommunications as well as adequately provided with energy. However, road conveyance still remains a common means of transport which accounts for more than 93% of all cargo and passenger traffic. The responsibility for managing and maintaining roads in the country tumbles under the Ministry of Roads and implemented the national and county government through various bodies.

Development of road projects impact on the socio-economic status of the rural dwellers as it leads to improved national highways. In Bhutan for instance, there was a strengthening of 136.38 kilometers of national highway and a construction of 66.07 km of feeder roads in the first quarter of the year 2015 (ADB, 2015). This road network project in particular provided rural populations with better access to social and economic opportunities such as easy access to markets. There was an increase of vehicles travelling between 30 to 40 kilometers per hour from between an average speed of 15 to 20 kilometers per hour before the construction.

The strengthening of these roads also reduced the vehicles' operational cost. Better road conditions in most cases result in reduced vehicle operating cost roughly by 18%, vehicle mobility time by 23%, and trekking distance for villagers by 65%, (ADB, 2015). In particular, constructions of feeder roads in most cases drastically improve socio-economic wellbeing of farmers in the road network project areas. Before the construction of roads in the rural areas, there are mostly narrow footpaths connecting the villages. After the constructions of the road network projects, farmers can transport their farm produce to the markets and towns by motorized vehicles. This in turn widens agricultural sector as well as improving easy access to education services, health facilities, and other social amenities.

2.3 Power Supply and Socio-Economic Development

There is a worldwide acknowledgement of the role of power in the social and economic development. This is due to the fact that extensive use and provision of power services is strongly correlated with the socio-economic development of the players in a country. This therefore, puts power at the center of reducing not only poverty and hunger, but also increasing literacy levels and education status of the

people concerned thus reducing infant and maternal mortality rates (WHO/UNICEF, 2008).

The Africa's largest deficiency in terms of infrustructure is prounounced in the power sector, Clos J. (2011). This is attributed to indicators such as the rate of power consumption, power generation capacity or total security of produced and supplied power. The author adds further saying that the power sector in most parts of African continent is characterized by inadequate access; a common practice among the rural dwellers in Kenya, low usage and purchasing efforts among the community members, low power effectiveness and over-relying on indigenous modes for realizing the basic power requirements (the use fire woods and kerosene). He in fact alludes that biomass use in Africa accounts for as much as 75% of total final energy consumption among the Africans compared to about 3% in developed countries.

African Development Bank, (2008) points out that in Africa, wood and charcoal is the most common and non-environmental friendly sources of power used in Sub Saharan Africa. It categorically points out that its use stand at 65% and 3% for firewood and charcoal respectively. This has led to over 400,000 mortality resulting from lung ailments per year due to continued exposure to closed pollution from filthy fuels in poorly aired dwellings among other health impairments; this clearly states why most residents in rural parts of Pokot South Sub County languish so much in poverty.

Clos J. (2011) observes that electricity production for the entire Africa stands at only 546.79 billion kilowatts per hour as of 2006 which is far more less than 594.6 billion kilowatts compared to Canada and more than 411.74billion kilowatts for Brazil. He alludes further that the usual power consumption per capita in Africa is about 480 billion kilowatt per hour in same period which is still far more less than 529.95

billion kilowatt per hour consumed by the people of Canada and higher than Brazilians who consumes 382.36 billion kilowatt per hour.

Overall, access to electricity in Sub-Saharan African countries remains extremely difficulty and inadequate. The low level of power production often is accompanied by low rates of power supply and unpredictable weather (keeping in mind that Africa depends largely on hydroelectric power). Clos J. (2011) points out that only about a quarter of Africa's population are currently connected to power grid, with supply almost restricted to urban dwellers which is in contrast with other parts of the developed nations, where electricity is available to over half the countries' people, with a considerable investment in rural electrification. It is however important to note that the among the lowest tariff rates of electricity, South Africa is the only country in Africa that competes with other nations in the world; this is basically caused by the nation's strong socio-economic growth, rapid industrial development and a mass power supply programmes in rural areas which has resulted to demand outstripping supply, (ibid).

2.4 Water Supply and Socio-Economic Development

Use of improvised safe and adequate water sources is globally high with 87% of the world population and 84% of the people in developing countries sourcing their drinking-water from such sources as of the year 2008(Clos, 2011). The author points out further that with the exception of Oceanic water sources, the continent of African has lesser water coverage in the world, thus the need for the provision of the water infrastructures to her citizens. However, the report indicates that in the year 2008, more than 60% of the African dwellers were accessing improved drinking water sources signifying an increase of 11% points since 1990, (ibid).

A report by (WHO, 2008) points out that 0.884 billion people in the globe currently do not get their drinking-water from improvised sources with most of them being in developing nations. Particularly, Sub-Saharan Africa accounts for 0.330 billion (39%) followed by Commonwealth of Independent States (26%) and Eastern Asia (18%). The report further indicates a wide variations in country performance; Egypt and Mauritius which lead with over three quarters of their population having access to improved water resources. This is followed by Botswana, Gambia and Djibouti. Important to point out are Ethiopia (38%), Mozambique (47%) and Mauritania (49%) who are at the bottom as far as water sources are concerned which are also the three countries where access and use of improved water sources is below 50% (ibid).

(Clos, 2011)observes that there are huge variances between rural and urban dwellers as evidenced in African Continent as far as water is concerned. He cites an instance where domestic water coverage for rural dwellers in Africa increased significantly from 36% in the year 2000 to 47% in 2008 and the individuals with access to piped water which marginally increased from a dismal 4% to 5% in the same period. These compared to urban areas which experienced a marginal decline from 83 to 82% in the same period which does not reflect the population growth in these areas.

WHO, (2008) categorically states that about 18% of Sub-Saharan African nations (Kenya included) population heavily depends on a source of drinking water that in most cases despite it being improvised, is still more than a half an hour water collection trek. It singles out notably in Eastern African countries where more than a quarter of the population are highly affected with it. It is also in this areas where due to strict cultures, women shoulder the bulk of the responsibility of gathering water and this often takes quite some time to fetch the resource.

2.5 Housing and Socio-Economic Development

Arimah, (2011) and UN Habitat, (2003) asserts that as it's the case with most economies, housing is produced by each house holder and thus, it is quite possible to find different people/individuals living in various types of structures, which in most cases are built from available materials including mud, grass, plastics, cardboard, discarded wood, tin, aluminum among others. Housing structures may also be built using more durable materials including bricks, sand, stones and cement or even improvised aluminum materials/iron. Critical to note is that many homes around the globe lack plumbing, electricity connectivity, access to clean and adequate to drinking water, and/or safe sanitation and disposal methods. UN Habitat, (2003) report alludes that in the non-developing world, a slum (housing structure) might be composed of housing that was once of high quality, but over time has become ruined and poorly maintained and is now substandard because of "redlining" or other forms of limited access to credit. Thus the variations in terms of housing and preferences. For instance, in Europe, Canada, and the United States, residents of slum communities may also live in structures built from salvaged materials which are locally sourced particularly if they reside in rural areas (Park & Pellow, 2011; Ramirez & Villarejos, 2012); a case with Pokot South Sub County.

Masinga, (2010) observes that in cases where the state-subsidized housing units are provided, modifications of such units are often inevitable so as to make these basic investments suit the individuals needs coupled with the ever changing demands of tastes and preferences of the end user. Using examples from South Africa, he says that most residents incrementally change the designs, adapt to one already constructed and re-organize their housing facilities and neighbourhoods in such a way that makes them more usable and appropriate for their needs than the original construction plans

and designs. The authors points out further that these alterations also shifts these housing away from purely residential to commercial purposes thus improving the socio-economic livelihood of the dwellers. This is coupled by the change in the nature of land mechanization in the settlement areas from primarily residential to more diverse including shop retailing, domestic services such as religious, supporting community activities and recreational purposes.

A study by Tipple, (2000) states that income generation by most rural and urban dwellers might involve housing modifications, physical changes and extension to housing units made by the dwellers, such as rooms constructed for lodgers, or household members. In addition to widening space for families, Schlyter, (2003) asserts that housing transformations usually delivers rental facilities, introduces built-form variety improving the economic, environmental and social quality of the living standards of the people and their working environment.

2.6Theoretical Framework

This study adopted the Kenyan Social Policy Model, (2006) which stresses the enhancement of capacity and opportunities for the poor and vulnerable individuals to improve and sustain their livelihoods and social welfare. This policy model looks at poverty in an integrated and coordinated manner in such a way that various attributes that interlink are well articulated. The policy also prioritizes reduction of extreme poverty and suffering among the individual households thus the need for various infrastructural projects that aim at improving the socio-economic developments of the societies. The model further emphasizes on long-term and predictable interventions to individual needs within a society and lastly, it stresses on asset creation and support; this being the main aim of this investigation. Through asset creation and support,

various infrastructural projects are said to be put in place and this greatly influences the social and economic development of the affected individuals within a social system.

2.7 Conceptual Framework

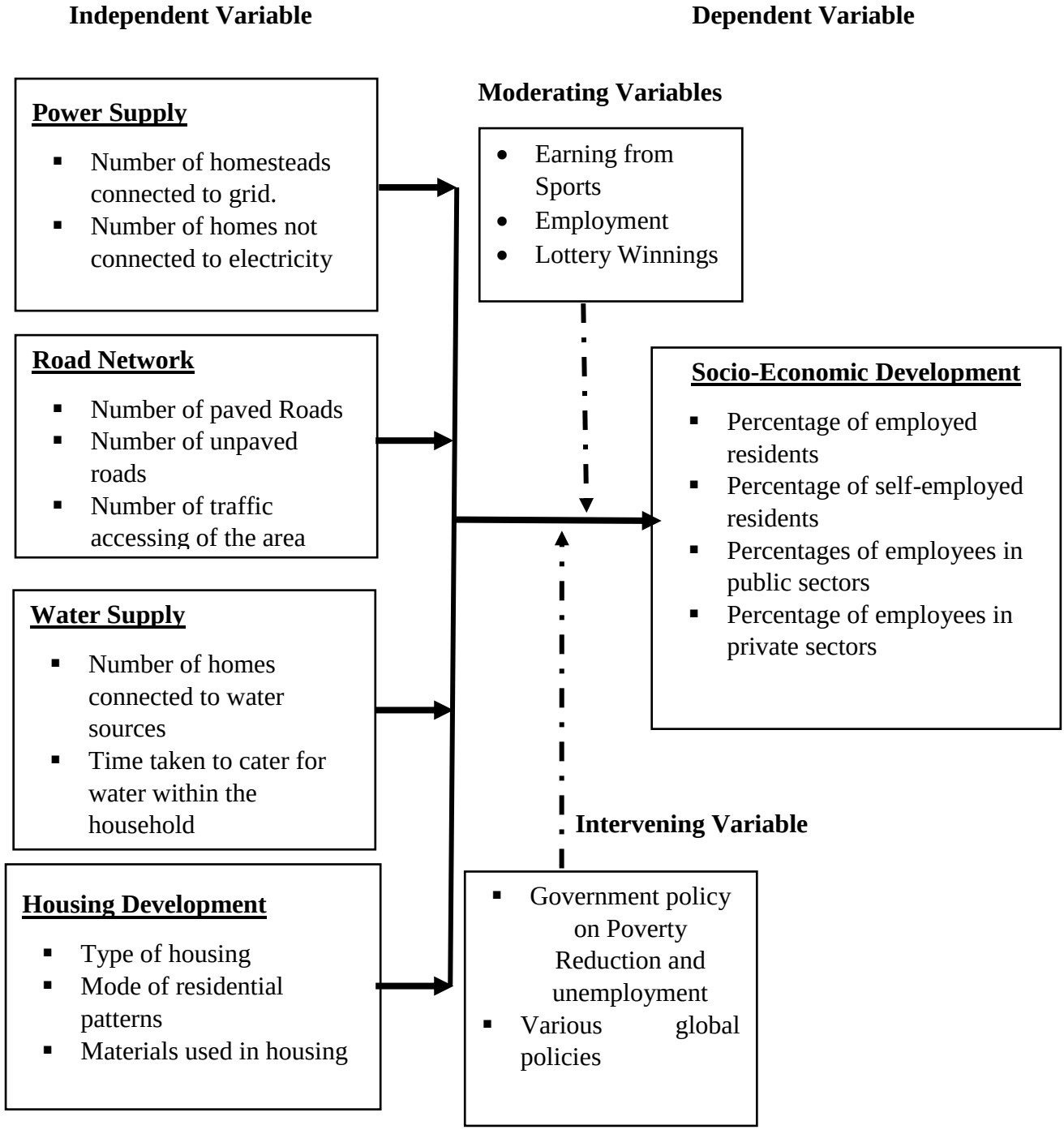

Fig. 2.1: Conceptual Framework

2.8 Summary on Literature Review

The review of information from various scholars has revealed that infrastructure projects targeting the rural folksoften results into several direct and indirect socio-economic development. For instance, construction of rural roads may result in increased mobility within the society, development of numerous activities such growth and sprout of businesses along the said roads, and a reduction of poverty levels. The review has also established that over 0.884 billion people in the world currently do not get their domestic-water from improvised sources with a huge section of these being in developing nations. The review also shows that over 18% of Sub-Saharan Africa dwellers heavily relies on sources that in most cases despite it being improved, is still more than a half an hour water collection trek(WHO/UNICEF, 2008).

The review has also revealed that most of the housing units are built from locally available materials such as mud, grass, cardboards are mostly user preference. However, in cases where housing is provided by the government, modifications of such units is inevitable to suite the end user needs.

Further, the review points out that less than a third of Africa's population currently are connected to power grid, with supply almost entirely limited to urban areas which is in contrast with other parts of the developing world, where electricity is available to over half the countries' total population, with a considerable advancement in rural electrification(Clos, 2011) and only 22.7% of the total road network in the continent been tarmacked thus rendering most of the African countries facing huge transportation costs (UNECA, 2008).

2.9 Knowledge Gap

As acknowledged by Simkunaite, (2009), most of the researches have focused so much on tackling the theoretical and empirical dimension of the correlation between infrastructure projects and economic development basically coming up with the findings that elaborate on the economic aspects of the infrastructural projects and in relation to poverty reduction. However, in a study by (Kempe Ronald Hope, 2011) who sought to establish infrastructure constraints and development in Kenya, aptly recommends that further investigations need to be devised to point out some of the socio-economic impact/influences that the development of infrastructural projects have as far as poverty reductions is concerned among the rural dwellers. He says, this will greatly address some of the constraints experienced. Thus, this investigation endeavored to bridge this gap.

CHAPTER THREE

RESEARCHMETHODOLOGY

3.1 Introduction

This chapter analytically looks at various methodological procedures that were employed in this investigation when collecting data to meet the objectives of the study. It focuses on research design, target population, sample size and sampling procedures, research instruments, reliability and validity of data gathering tools, data gathering procedures and methods of data analysis.

3.2 Research Design

As described by Kothari (2004), this is a conceptual structure within which investigations are conducted constituting the laid down structure for collection, measurement and analysis of data. This study employed a descriptive research design majorly survey which focused on investigating the influence of infrastructural projects on socio-economic development of the residents of Pokot South Sub-County. This study design was chosen as it vividly examined the conditions in terms of knowledge of the residents, their attitudes, beliefs and perceptions on infrastructural projects and their socio-economic developments and the findings can portray the situation for the entire county.

3.3 Target Population

As observed by Kombo and Tromb, (2006), population in research is the entire group of subjects/persons that have some common resemblance. The population of this

survey was calculated from the entire residents of Pokot South sub-county.132,100 people (KNBS, 2009) who had lived in the Sub-County for more than 2 years and only those who were above 16 years of age.

3.4 Sample Size and Sampling Procedure

3.4.1 Sample Size

The sample size from the Sub-County was determined using the raosoft sample calculator (http://www.raosoft.com/samplesize.html) which gives 384 household heads which was sourced from all the 4 Wards in the Sub County. This is because, given the nature and time limits of the study, 384 household heads were adequate to give the required data for the study.

3.4.2 Sampling Procedure

The population of this investigation was heterogeneous in nature as it consisted of both male and female residents of Pokot South Sub-County. Thus, the researcher employed both stratified and simple probability sampling to pick the required sample. The researcher used stratified accidental sampling to stratify the male residents from the female residents; this was aimed at giving each of the sexes an equal chance of being a participant in the survey. Thereafter, a simple random sampling was employed to identify the subjects from each stratum to participate in the sample. This method of random sampling was also used so as to give each and every subject of the population an equal and independent chance of being a participant in the survey.

3.5 Data Collection Instruments

Data was gathered using research questionnaire and observation for community members and interviews for Key Informants and document analysis.

3.5.1 Piloting of the Instruments

This was carried out in a nearby West Pokot Sub-County which has the same characteristics as the target Pokot South Sub-County. This process gathered the views of the respondents and their input was also sought on various issues they felt needed either to be included or excluded from the data collection tools.

3.5.2 Reliability of Instruments

The reliability of data collection instruments is the measure of the degree of consistency with which the research instruments measure what it is supposed to measure: It is the extent to which an instrument is consistent in measuring whatever it is measuring, Mugenda, (2008). The reliability of the data collection tools was assessed through the test retest technique and this was during the piloting of the instruments. Data obtained was analyzed to determine extent to which the research instrument is reliable

3.5.3 Validity of Instruments

Validity in research refers to the extent to which conclusions which are made on the basis of numerical scores are appropriate, meaningful and useful; the accuracy of the information gathered by the data collection tools. The university supervisors validated the data collection tools to ascertain as to whether they covered and measured all the

objectives of the study. This activity included the questioning typology, questioning format and type.

3.6 Data Collection Procedures

The researcher preferred personal delivery. Once delivered, the respondents were given questionnaires and responded to them in the presence of the researcher within the stipulated time frame. The researcher then collected back the filled-in questionnaires and continued with the exercise until all the sampled residents were covered. This is because; this method of questionnaire administration often offers a 100% response rate. The researcher also in person held interviews with the Sub-County administrators in their offices and other selected residents at their households which was sought prior to and at a convenient time using a structured interview schedule.

3.7 Data Analysis Techniques

As conceptualized by Mugenda & Mugenda, (2003) this is a process of bringing directive, arrangement and connotation to the mass data collected. The collected raw data was cleaned, coded and entered into Excel sheet, after which analysis wascarried out with the help of Statistical Package for Social Scientists (SPSS version 22.0). Descriptive statistics has been utilized and inferential statistics is used to determine the correlations between the variables. The analyzed data is presented in tables and narrative for ease of understanding.

3.8 Ethical Considerations

The researcher obtained a research permit from the university and NACOSTI to carry out the research. To ensure confidentiality and privacy of the respondents, the respondents were instructed not to give their names or anything that might identify them on the data collection tools; this ensures that no one links the data to specific individual in the population. The researcher also clearly indicated (in introductory letter) the purpose of this study as academic only. The investigator also maintained a mutual relationship and understanding by seeking consent from the respondents and this was achieved by keeping them anonymous and going by the research agenda throughout the study. All the referenced sources in this study is acknowledged.

3.9 Operationalization of Variables Table

Objectives	Variable	Indicators	Measurement Scale	Type of Analysis
To establish how road network influence the socio-economic development of the rural dwellers of Pokot South Sub County.	Road Network (IV)	Number of paved roads Number of unpaved roads Number of traffic accessing the area	Ratio	Descriptive Inferential
To determine how power supply influence the socio-economic development of the rural dwellers of Pokot South Sub County.	Power Supply (IV)	Number of homesteads connected to the grid Number of homestead not connected to the Grid	Ratio	Descriptive
To assess how water supply influence the socio-economic development of the rural dwellers of Pokot South Sub County.	Water Supply (IV)	Number of homes connected to water sources Time taken to fetch water within the homestead	Ratio	Descriptive Inferential
To determine how housing influence the socio-economic development of the rural dwellers of Pokot South Sub County.	Housing Development (IV)	Types of housing units Material used in housing Modes of residential patterns	Ratio	Descriptive Inferential
	Socio-Economic Development (DV)	Percentage of employed and self-employed residents Percentage of employees in public sector	nominal	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION,INTERPRETATION AND DISCUSSION

4.1Introduction

This chapter presents data analysis and interpretation following research objectives. The purpose for this research was to investigate the influence of infrastructural projects on socio-economic development among the residents of rural parts of Pokot South Sub-County in West Pokot County, Kenya. The study sought to establish how road network projects influence the socio-economic development of the rural dwellers of Pokot South Sub-County, to determine how power supply influence the socio-economic development of the rural dwellers of Pokot South Sub-County, to assess how water supply influence the socio-economic development of the rural dwellers of Pokot South Sub-County and to determine how housing influence the socio-economic development of the rural dwellers of Pokot South Sub-County.

The collected information was analyzed using both descriptive statistics and inferential statistics. For descriptive statistics, frequency distribution tables showing responses and percentages were constructed while in inferential statistics, analysis of variances were calculated from coded data using Statistical Package for Social Scientists (SPSS) version 22 to test the variances between the independent and dependent variable. This was followed by data interpretation and discussion.

4.2 Questionnaire Return Rate

This is the proportion of the sample that were participant in the investigation and returned their questionnaires on time as intended by the researcher. The results on is presented in Table 4.1.

Table 4.1:Questionnaires return rate

	Frequency	Percentage	Cumulative Percentage
Returned	315	82.00	82.00
Not Returned	69	18.00	100.00
Total	**384**	**100.00**	

Table 4.1 shows that most (82%) of the questionnaires dispatched to the sample were returned on time for analysis. This shows that the researcher maintained a rapport with the respondents and the study also taken seriously. Also the researcher seems to have made a good follow up of the distributed questionnaires which enabled him to get back most the questionnaires. However, for the few (18%) that were not returned resulted from the cases where some of the questions in the questionnaire were not responded to and thus the research found it necessary not to consider them.

4.3 Distribution of Respondents by Gender

The respondents were asked of their gender and this was to identify as to whether the study was gender considerate and to establish as to whether gender was a factor as far as development of infrastructural projects and socio-economic status of the residents is concerned. The results are shown in Table 4.2.

Table 4.2: Gender of the Respondents

	Frequency	Percent	Cumulative Percent
Male	150	47.6	47.6
Female	165	52.4	100.0
Total	315	100.0	

Table 4.2 above indicates that majority (52.4%) of the sampled residents were female compared to(47.6%) their male counterpart. This implies that study was keen on one third gender rule and this was mainly for comparison purposes as far gender and infrastructure development is concerned.

4.4 Distribution of Respondents by Age

The researcher found it credible to identify the age of the sampled residents. This was to determine how the age of the respondents was distributed among the residents of Pokot South Sub County who are the beneficiaries of the said Infrastructural projects. This is illustrated in table 4.3.

Table 4.3: Age of the Respondents

Age Group	Frequency	Percent	Cumulative Percent
15 years to 20 years	34	10.8	10.8
20 years to 25 years	77	24.4	35.2
25 years to 30 years	114	36.2	71.4
30 years to 35 years	59	18.7	90.2
35 years to 40 years	19	6.0	96.2
Over 41 years	12	3.8	100.0
Total	**315**	**100.0**	

Table 4.3 indicates that majority (90.2%) of the residents sampled were between 15 years to 35 years of age. This shows that the respondents were in the youth bracket and as such were mature enough to tell whether there infrastructure development in the area and how it had impacted on their economic status.

4.5: Distribution of Respondents by Occupation

Given the importance attached to this investigation, the researcher found it eminent to establish the occupation of the sampled residents. This was mainly to ascertain their main economic activity and how it can impact on the infrastructure development. This illustrated in table 4.4.

Table 4.4 Occupation of the Respondents

	Frequency	**Percent**	**Cumulative Percent**
Self Employed	104	33.0	33.0
Formally Employed	101	32.1	65.1
Not Employed	82	26.0	91.1
Not Applicable	28	8.9	100.0
Total	**315**	**100.0**	

Table 4.4 shows that a third (33.0%) of the residents sampled were self-employed. This therefore means that they were greatly dependent on the available infrastructural projects for their economic growth and thus provided true information based on their knowledge as far as infrastructural projects and socio-economic status is concerned.

4.6: Road Network Projects and Socio-Economic Development in Pokot South Sub-County

The first objective of thisinvestigation was to establish how road network influence socio-economic development of the rural dwellers of PokotSouth Sub County. Here, the sampled residents were asked to state whether there were sufficient roads in the Sub-County. This was mainly for the purpose of identifying as to whether according to the local dwellers' mind, the available roads were enough. The findings indicated that majority (70%) of the respondent sampled denied the fact that there were sufficient roads in the Sub-County. This was also evident as it was not easy for the researcher and his research assistants to navigate around the Sub-County collecting data; in many occasions, the team were forced to go through thickets and unpaved ways so as to access the sampled households. However, for the few (30%) who acknowledged the fact that there were sufficient roads in the area were either ignorant or felt suspicious that the study was targeting them personally and therefore did not want to divulge any information about it.

Having identified that 70% of the sampled residents held views that there were insufficient roads in the Sub-County, the researcher found it eminent to ascertain whether in the last three years before this assessment there has been either construction of new roads or repairing of the existing ones and whether the residents knew the main contractors and financiers. This was mainly to assess whether any effort was being made to address the deficiencies as illustrated in table 4.5.

Table 4.5 Construction or Repairing of Roads in Pokot South Sub-County

	Frequency	Percent	Cumulative Percent
Yes	170	54.0	54.0
No	145	46.0	100.0
Total	315	100.0	

Table 4.5 shows that slightly (54%) of the sampled residents of Pokot South Sub County had seen either the construction of new roads or repairing of the existing ones in the region. This indicate that efforts are put in place by both the national and county government (54.9%) to address the insufficiency of roads in the whole Sub-County as shown in table 4.6.

Table 4.6: Knowledge on the Main Contractors of the said Roads

	Frequency	Percent	Cumulative Percent
County Government	59	18.7	18.7
National Government	114	36.2	54.9
I Don't Know	39	12.4	67.3
Not my Business	103	32.7	100.0
Total	**315**	**100.0**	

These findings are in line with URSSI, (2012) and KRB, (2015) reports which states that the country's road network is estimated to be 160,886 km long and categorically points out that the responsibility for managing and construction of these roads is under the Ministry of Transport and Infrastructure and is initiated and executed by KeNHA, KeRRA, KURA, KWS and County Government as from 2013.

Having established that there were constructions and/or repairing of roads in the Sub-County for the last three years, the researcher found it credible to assess the rating of the general state of the said roads. Here, the respondents were requested to rate out of five where responses close to represented worst or bad whereas that towards one meant excellent. It was clear that the state of the road network in the Sub-County as bad. This was evident by the fact that most of the roads in the area are unpaved and during rainy season as it was during the data collection exercise, the roads are impassable and most traffic are affected by this muddy routes. In many occasions, the researcher and his team were forced to trek long distances on muddy roads abandoning their means of transport to reach the next available sampled homestead.

In identifying the influence of road network project on socio-economic development of the rural dwellers of Pokot South Sub-County, a likert scale type of question was used where 1 represented Strongly Agree, 2 represented Disagree, 3 represented Neutral, 4 represented Disagree and 5 represented Strongly Disagree. Hence, mean and standard deviation were used in answering this objective. This is demonstrated in table 4.7

Table 4.7: Influence of Road Network on Socio-Economic Development

Factors	Mean	Std. Deviation	Rank
Through construction of roads in the area, most areas which were inaccessible have been opened up thus improving communication and security in the whole Sub-County.	2.06	1.291	1
Availability of roads has made it easy for the residents to access markets, schools and other social amenities.	2.07	1.246	2
Road network has encouraged the sprouting of business ventures along the newly constructed roads.	2.09	1.237	3
Construction of roads have offered employment opportunity to many youths in the area.	3.16	1.346	4
Availability of roads have increased household income	3.21	1.405	5
Any other factor	3.97	1.144	6

Table 4.7 shows that of (54%) respondents who claimed that national government and county government had constructed and/or repaired the existing roads in the Sub-County, factors "through construction of roads in the area, most areas which were inaccessible have been opened up thus improving communication and security in the whole Sub-County" was ranked "first" (2.06), "Availability of roads has made it easy for the residents to access markets, schools and other social amenities" was ranked "second" (2.07), "Road network has encouraged the sprouting of business ventures along the newly constructed roads" was ranked "third" (2.09), "Construction of roads

have offered employment opportunity to many youths in the area" was ranked "Fourth" (3.16), and "Availability of roads have increased household income" was ranked "fifth" (3.21). Thus among the ways in which construction of road network in Pokot South Sub-County have influenced the socio-economic status of the residents, opening up of the area thus improving communication flow and security in the area, easy access to markets, schools and other social amenities by the residents, and sprouting of business ventures along the newly constructed roads were the main evident forms as they all had a mean score of 2.0 and a close standard deviation of 1.0 truncated.

Further, an in-depth analysis via the use of ANOVA test on construction of road network projects was done to assess whether it had any significant relationship with the socio-economic development of the residents. The F- value (F=84.224) was found to be significant at 0.0 significance levelwith a degree of freedom of 1% as summarized in table 4.8.

Table 4.8: ANOVA test for Road Network Projects on the Socio-Economic Development of Pokot South Sub-County

	Sum of Squares	df	Mean Square	F value	Sig.
Between Groups	103.436	1	103.436	84.224	0.00
Within Groups	384.418	313	1.228		
Total	487.844	314			

The above findings are in line with ADB, (2015) who observes that construction of roads in Bhutan area provided rural populations with better access to social and economic opportunities such as easy access to markets, schools and other social amenities such as hospital. The report further indicates that constructions of feeder roads in most cases drastically improve socio-economic welfare of farmers in the road network project areas. This in turn stimulates agricultural advancement thus

improving easy access to social services such as health, education and other social amenities.

4.7: Power Supply and socio-economic development

The second objective of this investigation was to determine how power supply influence the socio-economic development of the rural dwellers of Pokot South Sub County.

In identification of the main source of power among the residents' of Pokot South Sub-County, the respondents were asked to state categorically the sources they use. This was mainly to ascertain the common preferred source of power among them. This is clearly illustrated table 4.8

Table 4.9: Main Source of Power

Source	Frequency	Percent	Cumulative Percent
Electricity	111	35.2	35.5
Petroleum Products	52	16.5	52.1
Wood and Charcoal	144	45.7	98.1
Electricity, Petroleum, and Wood and Charcoal Combined	6	1.9	100.0
Total	313	99.4	

Table 4.9 clearly shows that the use of wood and charcoal (45.7%) is the most preferred source of power in most of the households in Pokot South Sub-County followed closely by the use of electricity (35.2%). This means that, a third of the population in the Sub-County are dependent on the electricity as the sole source of power. These findings are in line with African Development Bank, (2008) who points out that wood and charcoal use is popular and non-environmental friendly source of

energy used in Sub-Saharan Africa. However, there is a slight reduction in the use of wood and charcoal of about 65% and 3%respectively.

Having identified that a third of the sampled residents of Pokot South Sub-County are dependent of electricity as a main source of power for the family, the study sought to establish the connectivity of the electricity in the Sub-County. Here, the respondents were asked about their views in regard to the whole issue. It was evident that electricity connectivity in Pokot-Sub County is poor (40.5%). This notion prompted the researcher to seek more information as the Kenyan government launched the "last mile" project in the year2014/2015 which aims at connecting all households to the main grid.

These findings are in line with Clos. J (2011) who says that connection of electricity in Africa continent is characterized by inadequate access which is a common practice mostly in rural areas of Kenya, very low usage power among the community members, low electricity power supply and high dependence on traditional methods for meeting basic power requirements.

The sampled residents were requested to state whether they had been connected to the grid through the rural electrification programme as a third of them claimed to be using electricity as the main source of power. This was to assess the extent of the programme so far among the rural people of Pokot South Sub-County. This is illustrated in table 4.10

Table 4.10: Whether the Respondent is a Beneficiary of Rural Electrification Programme

	Frequency	Percent	Cumulative Percent
Yes	50	15.9	15.9
No	265	84.1	100.0
Total	315	100.0	

As illustrated in the table 4.10, it is clear that most (84.1%) of the residents of Pokot South Sub-County are not beneficiaries of the Rural Electrification Programme. This therefore calls for the speeding up the government efforts on offering free and affordable electricity to her citizen to spur growth and development.

Having identified that a few (15.9%) of the sampled residents of Pokot South Sub-County were beneficiaries' of Rural Electrification Programme, the study sought to identify some of the benefits that have been evidenced in terms of their socio-economic development. Some of the factors identified are as follows: -

First, connection of electricity to the home and/or business premises had contributed greatly to the improvement of security of the premises connected to and the area in general. For instance one of the respondent aptly said that "…….immediately after connection, the insecurity cases have reduced tremendously, in the past, a week could hardly pass without experiencing cases of burglary and house/shop breaking…" Secondly, it was also established that the cost of doing business in the area had been reduced as other forms of power were costly compared to the use of electricity. For instance one business lady said…… "Some of the metal works that we used to get them far away are now available at a cheap prices…….this is because we have our own welders here who understands our needs". Third, the assessment also established

that connection of electricity in the area had spurred development. Further probing on this revealed that most of the residents had put structures along the electricity lines with the hope of benefiting from free connections. However, some of the respondents held views that working with electricity compared to other forms of power was more expensive and costly to them. To quote "……ever since the depletion of the pre-loaded power tokens, I have not and I don't even have the plans of reloading it……. I hear my friends say that the tokens are very expensive and with my status at the moment, I can't manage…."

The above findings are in line with WHO/UNICEF, (2008) which observe that connection of rural people to the grid reduces not only poverty and hunger, but also increases literacy and education status of the residents. Clos. J (2011) further observes that most the rural dwellers are mostly depends on traditional methods for meeting their daily energy requirements, the notion that has concurred with the findings.

4.8: Water Supply projects and socio-economic development

The third specific objective of the investigation was to assess the extent to which water supply influences the socio-economic development of the rural dwellers of Pokot South Sub County.

Table 4.11: Main Source of Water for the Family in Pokot South Sub-County

Source	Frequency	Percent	Cumulative Percent
River/Stream	138	43.8	43.8
Well/Drilled Boreholes	101	32.1	75.9
Piped Water	72	22.9	100.0
Total	**315**	**100.0**	

Table 4.11 shows that most (43.8%) of the respondents sampled depend on river/stream water for their daily livelihood. It was also evident that only a few (22.9%) of the residents sampled used piped water. This prompted the researcher to ascertain as to whether there has been any construction of water sources in the Sub-County in the recent past as overdependence on stream and/or river waters by the community members is hazardous and a leading causes of waterborne diseases as the study established that such sources were open and were used by both animals and human beings. These findings are in line with WHO, (2008) which points out that more than8.84 billion people in the globe at the moment do not get their domestic-water from improvised sources and particularly in developing nations, Pokot South Sub-County notwithstanding.

The study sought to identify whether there were any advances being made by the government in addressing the water issues in the Sub-County. Here, the respondents were asked to state whether there has been any construction of new water points in the area or repairing of the existing ones. This is illustrated in table 4.12.

Table 4.12 Construction of Water Sources in Pokot South Sub-County

	Frequency	**Percent**	**Cumulative Percent**
Yes	99	31.4	31.4
No	216	68.6	100.0
Total	**315**	**100.0**	

As illustrated in Table 4.12, majority (68.6%) of the sampled residents of Pokot South Sub-County have not witnessed construction of new water sources in the area or repairing of the existing ones. However, a few (31.4%) claimed to have witnessed

construction and repairing of water sources in the area. Further probing indicated that there was a water project initiated by the national government in the area "Muruny Water Project" that aimed at providing piped water to the local residents and the neighbouring West Pokot Sub-County, though the construction was in progress.

Having identified that most (43.8%) of the residents drew water from the nearby stream or river and that only a few (31.4%) of the respondents witnessing the construction of water points in the area, the researcher sought to establish the average time taken by respondents in a round trip when fetching the commodity. It was evident that most (56.9%) of the residents sampled took up to 30 minutes fetching water on a round trip. This findings are in line with WHO, (2008) which states that about 18% of Sub-Saharan African dwellers (Kenya included) heavily relies on sources of domestic water that in most cases despite it being improvised, is still more than half an hour water collection walk, though, in this case a tremendous increase. Thus the case in Pokot South Sub-County is worse and needs an urgent address by the concerned water boards.

The research found it eminent to ascertain the individuals tasked with collection of water resources in Pokot South Sub-County. This was mainly to get a glimpse of the affected section as far was water projects are concerned. This is clearly illustrated in table 4.13.

Table 4.13: Individuals Tasked with Fetching Water in the Family

	Frequency	Percent	Cumulative Percent
Women	46	14.6	14.7
Young children	13	4.1	18.8
Men	11	3.5	22.4
Women and Children	219	69.5	91.7
All (Women, Children and Men)	26	8.3	100.0
Total	**315**	**100.0**	

Table 4.13 shows that more than two thirds of the sampled residents of Pokot South Sub-County held the view that women and children (69.5%) were the group of individual tasked with fetching water for the family. This therefore means that, as they waste a lot of time looking for water, their education status especially for children and the opportunity to generate other activities are dwindled and thus the urgent need for the development of water projects. These findings are in line with UNICEF, (2012) report which alludes that women and children in most Sub-Saharan Countries are the ones tasked with fetching water for the family.

The study further sought to establish whether fetching of water has a socio-economic impact on the residents' socio-economic status. It was clearly that most (40%) of the sampled residents of Pokot South Sub-County said that fetching of water had impacted on their socio-economic status. This prompted the researcher to seek more information in terms of it having impacted on their lives.

In identifying the influence of water supply projects on socio-economic development of the rural dwellers of Pokot South Sub-County, a likert scale type of question was utilized where 1 represented Strongly Agree, 2 represented Disagree, 3 represented

Neutral, 4 represented Disagree and 5 represented Strongly Disagree. Hence, the mean value and standard deviation were used in answering this objective. This is illustrated in table 4.14.

Table 4.14: Influence of Water Supply Projects on Socio-Economic Development

Factors	Mean	Std. Deviation
Provision of Water has improved the Health Status of the Respondent's Family	3.24	1.580
Provision of Water has enabled the Respondent to Practice Kitchen Gardening and Agribusiness Ventures	3.51	1.530
Provision of water have tremendously improved the Household Income	3.56	1.400
Any Other	3.93	1.146

As illustrated in Table 4.14, it is clear that factors “provision of water has improved the health Status of the respondents’ family was ranked “first” (3.24), “provision of water has enabled the respondent to practice kitchen gardening and agribusiness ventures” was ranked second (3.51) and “provision of water has tremendously improved the household income” was ranked third (3.56) this indicates that most of the people interviewed disagreed with the fact that water projects had any impact on their socio-economic status in totality with an average mean of 4.0 truncated and a close standard deviation. This was found to be the case as nearly two thirds of the respondents denied the fact that there were construction of water points or repairing of new ones in the Sub-County.

4.9: Housing Projects and Socio-Economic Development in Pokot South Sub-County

The last objective of the study was to determine how housing influences the socio-economic development of the rural dwellers of Pokot South Sub-County.

The researcher sought to establish whether the sampled residents in one way or the other were assisted in the construction of their housing units be it residential or business premises. This was mainly to identify whether there were housing schemes in the area. This is clearly illustrated in table 4.15.

Table 4.15: Assistance During Construction of Housing Units

	Frequency	Percent	Cumulative Percent
Yes	92	29.2	29.2
No	223	69.8	100.0
Total	315	100.0	

Table 4.15 indicates that majority (69.8%) of the sampled residents didn't receive any assistance during the construction of their houses or business premises in the area. However, a few (29.2%) acknowledged that in deed they had received some assistance from other quarters other than themselves. This prompted the research to ascertain the individual and organizations assisting in building of the housing structures in the area.

Of the residents (29.2%) who said that they were assisted in the construction of their housing and/or business units in the area were requested to state the sources of the aid/assistance. The study established that a few (4.4%) and (11.4%) of the sampled residents were inhabiting housing units that were constructed by government agencies

and non-governmental organizations respectively. However, most (57.5%) aptly said that other individual and/or sources funded them. This included loans advanced from banks and microfinances. In particular one of the responded said that she took a loan with Kenya Women Finance and this loan assisted her greatly in the construction her business premise.

In identifying the most common government housing projects/units in rural dwellers of Pokot South Sub-County, a likert scale type of question was used where 1 represented Strongly Agree, 2 represented Disagree, 3 represented Neutral, 4 represented Disagree and 5 represented Strongly Disagree. Hence, mean score and standard deviation were used in answering this question. This is clearly illustrated in table 4.16.

Table 4.16: Governmental Housing Development Units in Pokot South Sub-County

Availability of:	Mean	Std. Deviation
Shades Such as BodaBoda Shades, Mama Mboga Shades and Matatu/Bus Parks	2.02	1.688
Jua Kali Housing Units	3.74	1.351
Improvised Kiosks/Mobile Housing Units/Huts	3.77	1.357
Real Estates and/or Village Upgrade housing	3.81	1.348
Any Other Housing Units	3.92	1.221

Table 4.16 shows that among the governmental housing projects in Pokot South Sub-County, housing units such as “availability of shades such as Bodaboda shades, mama mboga shades and matatu/bus parks” was ranked first (2.02), “jua kali housing units” was ranked second (3.74), “improvised kiosks and/or mobile house/huts” was ranked

third (3.77) and “real estates and/or village upgrade housing” was ranked fourth (3.81). Thus, among the common government housing units in Pokot County Sub-County, construction of shades such as mama mboga shades, bodaboda shades, and matatu/bus parks is the most visible infrastructural projects as it had a mean of 2.0. This was found to be the case as in most cases, during the data collection exercise, the researcher and his team had to shelter in one of the available bodaboda shades as it rained most often. The study also observed that most these structures were constructed from locally available materials such as iron sheets and timber off-cuts.

This being the main purpose of objective four, a likert scale type of question type of question was used where 1 represents Strongly Agree, 2 Disagree, 3 Neutral , 4 Disagree and 5 Strongly Disagree. Hence, the mean and standard deviation were used in answering this question. This is clearly illustrated in table 4.17.

Table 4.17: Influence of Housing Development Projects on Socio-Economic Development

	Mean	**Std. Deviation**	**Rank**
Provision of housing facilities has made it possible for my Siblings and Relatives to start up business ventures	2.02	1.334	1
Housing projects in the area have increased the respondents monthly revenue	2.05	1.331	2
Housing development have made it possible for the respondent to secure a business premise at affordable rates	3.13	1.272	3
Provision of housing has increased security in the area	3.22	1.257	4
Any Other	3.84	1.203	5

Table 4.17 shows that among the influences that government housing projects in Pokot South Sub-County factors "provision of housing facilities has made it possible for my siblings and relatives to start up business ventures" was ranked first (2.02), "housing projects in the area have increased the respondents monthly revenue" was ranked second (2.05), "Housing development have made it possible for the respondent to secure a business premise at affordable rates" was ranked third (3.13) and "provision of housing has increased security in the area" (3.22). Thus among the influences that housing projects have had on the socio-economic wellbeing of the rural dwellers of Pokot South Sub-County, most of the respondents' siblings and relatives have secured business premises that has enabled them start up business ventures. In addition, development of housing projects had increased average monthly income of the households as they all had a mean of 2.0 truncated.

Further, an in-depth analysis via the use of ANOVA test on the development of housing projects was done to assess whether it had any significant relationship with the socio-economic development of the residents. The F- value (F=45.3, 46.9, 35.6) was found to be significant at 0.00 significance level with a degree of freedom of 4%. The result of the ANOVA test is summarized in table 4.18.

Table 4.18: ANOVA test for Housing Projects on the Socio-Economic Development of Pokot South Sub-County

		Sum of Squares	df	Mean Square	F	Sig.
Provision of housing has improved the health status of the Respondent's family	Between Groups	288.864	4	72.216	45.245	.000
	Within Groups	494.799	310	1.596		
	Total	783.663	314			
Provision of housing has enabled the respondent to Practice kitchen gardening and agribusiness ventures	Between Groups	276.928	4	69.232	46.882	.000
	Within Groups	457.783	310	1.477		
	Total	734.711	314			
Provision of housing have tremendously improved the household income	Between Groups	193.934	4	48.484	35.649	.000
	Within Groups	421.609	310	1.360		
	Total	615.543	314			

As illustrated in ANOVA table 4.18, it is clear that the significance value is 0.00 which is below 0.05, and therefore, there is a statistically significant difference in the mean of housing development projects and socio-economic development of the residents of Pokot South Sub-County.

The above findings are in line with Schlyter, (2003) who asserts that housing transformations usually delivers rental housing units, introduces a built form sections and in totality improves the socio-economic and environmental and quality of the lives of the people and their working environment.

CHAPTER FIVE

5.0: SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS OF FURTHER RESEARCH

5.1: Introduction

This chapter summarizes the findings that were collected and analyzed, offers conclusions and recommends for policy actions to be under-taken.

5.2:Summary of Findings

Regarding the construction of road network projects in Pokot South Sub-County and the socio-economic development of the residents, it was established that 30% of the respondents held views that there were sufficient road network in the sub-county while 70% were of the contrary opinion. Further, 54% of them agreed to have witnessed construction of new roads and/or repairing of existing ones and 54.9% of the respondents alluding that the county government and national government were the main contractors. However, over 120 respondents termed the status of the road in whole Sub-County as “bad”. It was further established that construction of roads and repairing of the existing ones in the Sub-County had opened up most of the areas which were inaccessible and as a result improving communication and security in the whole area, had also quickened accessibility of the residents to markets, schools and other social amenities and had encouraged the sprouting of business ventures along the newly constructed roads. This was attested by the use of ANOVA which yielded a significance value of 0.00.

Regarding power supply in the Sub-County, the study found out that 45.7% of the respondents were dependent on wood and charcoal whereas 35.2% were dependent on electricity as the main sources of power. The data collected also revealed that 40.5%

of the respondents termed the electricity connection in the Sub-County as poor and only 15.9% were beneficiaries of Rural Electrification Rrogramme. As far as benefits of electricity is concerned, the study found out that connection of electricity to the home and/or business premises had contributed greatly to the improvement of security of the premises connected to and the area in totality. Further, the assessment also established that connection of electricity in the area had spurred development. However, some of the respondents held views that working with electricity compared to other forms of power was more expensive and costly to them.

On water supply in the Sub-County, the study established that 43.8% of the residents sampled were fetching water from the nearby stream/rivers with 31.4% of the respondents having experienced the construction of new water points or repairing of the existing ones in the area. It was also established that women and children (69.5%) were the ones tasked with fetching of water for the family. 40% of the respondents alluded that fetching of water had impacted in a way on their lives even though they were not certain whether provision of water has improved the health status of the respondents family or provision of water has enabled the respondent to practice kitchen gardening and agribusiness ventures.

Regarding the provision of housing facilities, 29.2% of the respondents had received assistance during the construction of the housing units from other (57.5%) sources which included banks and other microfinance lending institutions. Among the available government housing projects, the sampled residents agreed that, there were shades such as Bodaboda shades, mama mboga shades and matatu/bus parks. Further, it was established that through provision of housing structures in the Sub-County it was possible for respondents' siblings and relatives to start up business ventures and housing had increased the respondents' monthly revenue.

5.3: Conclusions

The study concludes that there are efforts advanced towards the construction of roads, development of housing units, water supply and power connectivity in Pokot South Sub-County by the county government and national government though at minimal levels and that is why their impacts have not been fully felt by the local residents. Further, the way the infrastructural projects are designed does not mirror the entire Sub-County, thus the disparities.

The results showed that the analysis of variances (ANOVA) between the infrastructural projects and socio-economic development of the rural residents of Pokot South Sub-County were at significance level 0.00. The study concludes that there is a statistical differences between the identified variables.

The results also showed that a handful of residents sampled to participate in the survey were beneficiaries of Rural Electrification Programme and other governmental housing programmes. The study therefore concludes that there are government projects which are being implemented nationally that are also being implemented at the Sub-County.

The results also showed that over two thirds of the respondents acknowledged that the responsibility of fetching water for the family was vested upon the children (boys and girls) and mothers and that fetching water in a round trip takes more than 30 minutes' walk. The study concludes that children waste a lot of time in fetching water instead of utilizing it for schooling and playing. Mothers also spend a lot time looking for water and thus may not have any other time for other income generating activities.

5.4 Recommendations for Policy and Practice

The study makes the following recommendations:

i) The government need to speed up the implementation of Rural Electrification Programme to reach most the rural dwellers in the Sub-County.

ii) There is an urgent need for the county government to collaborate with other players such as NGOs and other well-wishers in the provision of ample and affordable housing facilities and construction of safe water points such as drilling of boreholes.

iii) There's also need for the sensitization of the community members about the importance of educations especially that of a girl child rather than only being the prime provider of the family as far as sourcing for water resources is concerned.

iv) Lastly, the residents of Pokot South Sub-County need to be sensitized on the importance of utilizing and appreciating the available infrastructural projects in their midst. This may enable them to come up with various income generating activities to supplement their monthly pay.

5.5 Suggestions for Further Research

There is need to carry out more studies on this issue to establish whether there are other infrastructural projectsthat influence the socio-economic development of the rural dwellers as the study only considered four factors.

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APPENDICES

APPENDIX I: INTRODUCTORY LETTER

I'm John Karamunya, pursuing a Master of Arts degree in Project Planning and Management at University of Nairobi. As part of the requirement of this course, all the trainees are required to undertake a research inquiry of their choice. The purpose of this study is to investigation the influence of infrastructural projects on socio-economic development of the rural dwellers of Pokot South Sub County. You have been sampled out of the many residents of this sub county to participate in to this survey and provide responses to the attached questionnaire. Your participation in this study will be treated with utmost confidentiality and your privacy is also guaranteed. In order to foster this, you are not required to write your name or anything that might identify you anywhere on this questionnaire and the answers you provide will strictly be used for no other purpose other than for academic only. You are therefore requested to spare 20 minutes of your time to respond to the questionnaire attached herein. Thank you very much for your time.

…….

Signature

APPENDIX II: RESEARCH QUESTIONNAIRE FOR

RESIDENTS

QSN. NO:

RESEARCH QUESTIONNAIRE FOR RESIDENTS

A) BACKGROUND INFORMATION

1. Gender of the Respondents

   Male [ ] Female [ ]

2. Age of the resident

   Between 15 to 20 years [ ] Between 20 to 25years [ ]

   Between 25 to 30 years [ ] Between 30 to 35 years [ ]

   Between 35 to 40 years [ ] Above 40 years [ ]

3. Occupation of the Respondent

   Self Employed[ ] Formally Employed [ ]

   Not Employed [ ] Not Applicable [ ]

4. Level of education of the respondents

   Post Primary level [ ]

   Below Primary level [ ]

B) ROAD NETWORK IN THE SUB COUNTY

1. Are there sufficient roads in this area Yes [ ] No [ ]
2. In the last 3 years, has there been construction of new roads or repairing of the once existing? Yes [ ] No [ ]
3. If Yes in 2 above, who have been the contractors?

   County Government [ ] Central Government [ ]

   I Don't Know [ ] Not my business [ ]

4. Out of 5, how can you rate the road network connectivity in this area? Where 1 is very bad and 5 is excellent

   ……..……..

5. What can you say about the following statements? Tick only one

Factors	Strongly Agree	Agree	Don't know	Disagree	Strongly Disagree
Availability of roads has increased my income					
Availability of roads has made it easy to access market, school and other social amenities					
Road network has encouraged the sprouting of businesses along the roads					
Construction of roads has opened up areas in the sub county that was not easy to access thus improving communication and security					
Construction of new roads in this sub county has offered employment to many youths in the area.					
Any other					

C) HOUSING DEVELOPMENT

1. Were you assisted during construction of your house? Yes [ ] No [ ]
2. If Yes in 2 above by who?

   Government Agencies [ ] NGOs [ ] Family and Friends [ ]

   Others [ ]

   Specify……
3. Are there government housing projects in this area, shades included?

   Yes [ ] No [ ]

4. If Yes in 4 above, Can the following be said to be major types of government housing projects in the area? Please tick appropriately

Housing Project	Strongly Agree	Agree	Don't know	Disagree	Strongly Disagree
Shades (BodaBoda/Mama Mboga/Bus parks)					
Real Estates/ Village upgrade housings					
Jua Kali					
Kiosks/mobile houses/huts					
Any other					

5. If yes in 4 above, what is your frequency of access to the said housing projects?
   Never [ ] Rarely [ ] Sometimes [ ] Often [ ] Very Often [ ]
6. What are your views in regard to the following statements? Please tick appropriately.

Factors	Strongly Agree	Agree	Don't know	Disagree	Strongly Disagree
Housing has increased my monthly revenue					
Housing development has made it possible for me secure a business premise at affordable rates					
Provision of housing has made it possible for many youths to start up business					
Provision of housing has improved security in the area					
Any other					

D) WATER SUPPLY

1. What is the main source of water for the family?
   River/stream [ ] Well/Drilled borehole [ ] Piped [ ]
2. Estimate the time in minutes take to fetch water in a round trip……
3. Who are tasked with fetching water in the family

Women [ ] Children [ ] Men [ ] Women and Children [ ]

All (Men, Women, Children) [ ]

4. Has sourcing of water impacted in anyway in your life? Yes [ ] No [ ]
5. If yes in 4 above, what's your views in regard to the following statements? Please tick appropriately.

Factors	**Strongly Agree**	**Agree**	**Don't know**	**Disagree**	**Strongly Disagree**
Provision of water has improved the health status of my family					
Provision of water has enhanced me to practice kitchen gardening and agribusiness.					
Generally through provision of water, my income has improved tremendously.					
Any other					

E) POWER SUPPLY

1. What is the main source of power for the family?

   Electricity [ ] Petroleum products [ ] Wood and Charcoal [ ]

   Others [ ] please specify

   ……..

2. How is electricity connectivity in this area?

   ……

3. Are you a beneficiary of the rural electrification programme?

   Yes [ ] No [ ]

4. If yes in 3 above how has connectivity of electricity in your house/home been of beneficial? Please explain?

   ……

……

……

……

5. Has electricity connectivity impacted on the peoples live in this area?

Yes [ ] No [ ]

If Yes in 5 above, How?

……

……

……

……..

APPENDIX III: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. JOHN KARAMUNYA LIMAKAMAR
of UNIVERSITY OF NAIROBI , 4380-30200 KITALE,has been permitted to conduct research in *Westpokot County*

on the topic: *INFLUENCE OF INFRASTRUCTURAL PROJECTS ON SOCIO-ECONOMIC DEVELOPMENT AMONG THE RURAL DWELLERS OF POKOT SOUTH SUB COUNTY, WEST POKOT COUNTY, KENYA*

for the period ending:
28th April,2018

.....
Applicant's Signature

Permit No : NACOSTI/P/17/99744/16728
Date Of Issue : 28th April,2017
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officer will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEACH CLEARANCE PERMIT

Serial No.A 13886

CONDITIONS: see back page

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email:dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/17/99744/16728**

Date: **28th April, 2017**

John Karamunya Limakamar
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of infrastructural projects on socio-economic development among the rural dwellers of Pokot South Sub County, West Pokot County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **West Pokot County** for the period ending **28th April, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, West Pokot County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

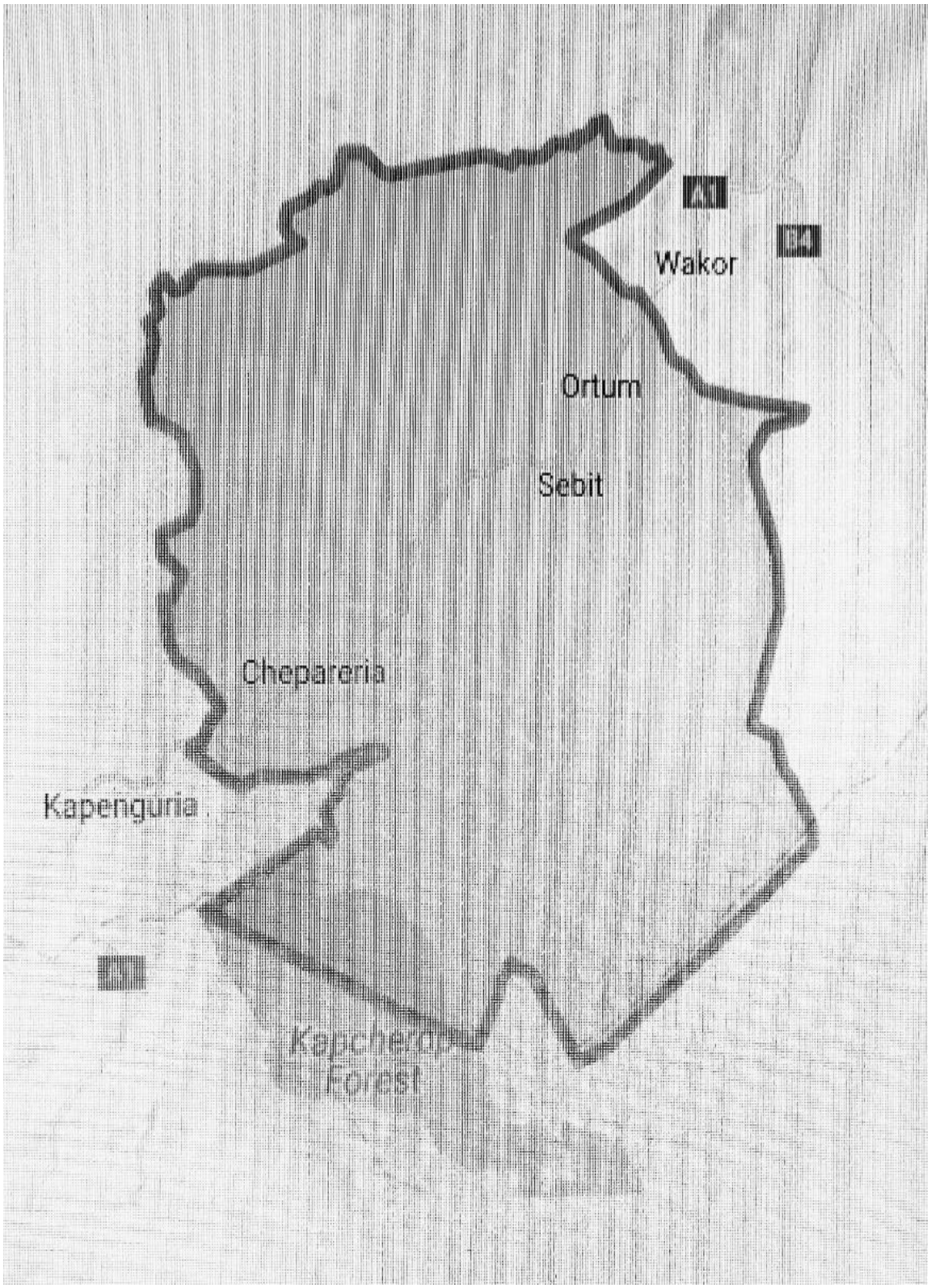
GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
West Pokot County.

The County Director of Education
West Pokot County.

APPENDIX IV: Map of Pokot South Sub-County



Source: Google Map (2017)