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## INFLUENCE OF SOCIO-ECONOMIC INFRASTRUCTURE ON ECONOMIC GROWTH IN DANDORA II VILLAGE; NAIROBI, KENYA

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### Abstract

Socio-economic infrastructure is a prerequisite for the development of any economy. Transport, housing, education and health facilities have become part and parcel of human existence and development; it is quite difficult to imagine a modern economy without these services because they are vital to the house hold life as well as to the economic activities that boost growth. Socio economic infrastructure plays a crucial role in promoting economic growth and thereby contributes to reduction of economic exclusion and poverty in any given country. Greater access of the poor to education and health services; housing, proper sanitation and road network is needed to bring equitable development and socio empowerment especially in low income suburbs; it is an important precondition for sustainable economic and socio development. Socio economic infrastructural investments in transport, education, health, housing, sanitation and auxiliary services play a vital and indirect role in development, and make a significant contribution towards growth by increasing productivity especially of human capital and other factors of production. This paper establishes how social economic infrastructure influences economic growth of Dandora II, a village setting of the larger Dandora suburb, Embakasi North, Nairobi.

**Key words;** Socio-economic infrastructure, Economic Growth, Poverty eradication, Livelihoods security, and Sustainable Urban Development

## 1.0 Background to the Study

Urbanization is one of the major socio-economic developments in the world which has fueled urban sprawl in many growing cities and towns Nairobi not an exception as a result of rural-urban migration. The latter has led to the growth of informal settlements many of which have brought a burden to the city especially the planning unit. Poor and inadequate social economic infrastructure services are among the major factors that hinder sustainable development in many developing countries in the world, which has led to new infrastructure approaches. Without adequate infrastructure, many less developed and developing countries will not be able to harness the power of science and innovation to meet sustainable development objectives and be competitive in international markets; roads for example are critical in supporting rural development. Emerging evidence suggests that decline in infrastructure development negatively affects economic development; (UNDP, 2000). All significant scientific and technical efforts require reliable electric power and efficient logistical networks; infrastructure promotes agricultural trade and helps integrate economies into world markets; it is also fundamental to human development including the delivery of health and education services. Reducing public expenditure in infrastructure has been shown to affect agricultural productivity in the Philippines for example (UN HABITAT, 2003)

Due to financial limitations and capacity constraints, most African cities are incapable of providing basic services to their citizens. Responsibility for some of these services is either shared or exclusively the preserve of the central governments; problems of inefficiency, inadequacy and poor maintenance of services are rampant. With regards to transport, communication and other utilities, the gap between demand and supply is deeply widening in many African cities. Existing facilities are poorly maintained and investment in expanded service delivery is constrained by lack of financing; as a result, traffic congestion, inadequate public transport, crumbling roads, unreliable electricity, insufficient electricity supply, poor health and education facilities and open sewerage tanks are becoming the norm rather than the exception even in affluent areas of cities, (United Nations, 2004)

In general, lack of adequate infrastructure ranks high basic impediments to economic growth in most sub-Saharan African countries one of the reasons why most African countries with the exception of South Africa suffer from poor information & communication infrastructure. Poor infrastructure in cities affects the economic performance of the private sector as well as the living conditions of the citizens. The increase of informal settlements means that, hundreds of thousands of people live in substandard housing structures with lack of proper facilities like drainage, sewerage, electricity, water and paved roads (World Bank, 2005).

Rapid urban growth in East Africa since the 1960's resulted from growth of existing urban populations as a result of massive movement to urban centers in search for refuge from poverty stricken rural areas and declining agricultural productivity.

This pattern has since then increased a high demand for housing and urban services vs. economic growth and development recording on average a slight negative trend in the 1990-98 periods, e.g. Uganda reported net economic growth of 3.5, Burundi a net loss of 4.2 over that period. It is believed that such trivial performance was due to fewer funds to sustain development projects which have resulted in poor infrastructural development and maintenance, increased unemployment and inability of people to purchase basic housing and services, UNDP (2000). East Africa is the least urbanized sub region in Africa with 26% of its population living in towns and cities; Nairobi having over 2.3 million people living in the cities (UNCHS 2001a).

The increasing urban population in Kenya has seen rapid growth of suburbs with inadequate provision of basic infrastructure like water, sanitation, proper Education and health facilities especially in Nairobi City.

Reports from the WHO/UNICEF (2000) on urban livelihoods say that, residents in unplanned/informal settlements in Nairobi paid between 30 cents - 70 cents for a 20 liter container of water compared to 17 cents per 20 liter container paid by consumers with water meters. Inadequate water for cleaning and sanitation creates opportunities for disease and pests to breed and spread as evidenced in the disease outbreaks in the Nairobi suburbs of cholera which has left many languishing. Bed bugs have been a serious menace for the many Nairobi East lands suburbs in the recent past, speaking from experience. Discharge of raw sewage into rivers and open sewerage systems in the Nairobi estates has increased, creating a toxic environment for plants and animal communities as well as humans. There is therefore need for the in charge officers in the government to place effective policy measures and regulations to arrest the situation, UNICEF (2000)

The continuance of rural habits by large numbers of people unaccustomed to living in an urban environment together with lack of maintenance has contributed to the decay of physical infrastructure. This has undermined overall human security and attainment of sustainable development. Despite all the various efforts by both the county and National governments, lack of basic social infrastructure and services in unplanned and informal settlements has led to unfriendly living conditions in most of these settlements in many cities and towns in developing countries Kenya included (Musemwa, 2010). It was therefore necessary to investigate how socio-economic infrastructure has influenced economic growth

of Dandora II suburb: Based on the findings the study proposed recommendations on appropriate planning interventions that would enable sustain and enhance better living conditions and environmental quality for the suburb citizenry

### **1.1 Review of Empirical Studies**

Socio economic infrastructure investment is an important driving force to achieve rapid and sustained economic growth; the absence of the same means slowed economic growth, thus, development. The presence of sufficient socio economic infrastructure will require additional investment and allocation of funds towards boosting development of the sector: This can provide a basis for the expansion of local manufacturing industries as well as enlarging markets for the outputs of the same; investment in education and health will provide for a health and elite population, thus, boost human productivity. Despite the direct link between the availability and quality of infrastructure – electricity, portable water and poor road maintenance to economic development (Todaro 1981) – the availability of infrastructure in most developing countries especially in the sub-Saharan African region leaves much to be. Among the factors that influence economic growth of an economy include; levels of infrastructure, levels of corruption which effects on delivery of public services, education standards which effects on labor productivity, level of local investment, labor mobility and levels of savings of the people. Regions with inadequate infrastructure usually have lower per capita income, low productivity, high unemployment levels, thus, high crime rates (World Bank 2013).

Tibaijuka A. (2007) notes that, regions with good basic facilities in education, health, transport, housing, sanitation and auxiliary services have high chances of attracting investment both locally and externally. Good infrastructure has a positive effect on production as it lowers direct production costs of labor and transport. Inadequate socio economic infrastructure and services become a burden for infrastructure providers/suppliers, thus, leading to low efficiency of output. It is true that socio economic development can be accelerated and facilitated by the presence of socio economic infrastructure; absence of the same means difficulty towards growth and development since it negatively effect on the economic activities, thus, strain on acquisition of basic needs and services. A well-functioning socio economic infrastructure system will boost rapid growth of any region and thus raise the living standards of the citizens. Apart from its direct linkage to growth, socio economic infrastructure influences on health, poverty reduction, equity and general quality of life (Tibaijuka, 2007)

### 1.1.1 Theoretical Framework

This paper draws from the theory of infrastructure led development (Agenor, 2006); and the theory of infrastructure and growth (Dissou et al, 2013)

In his Journal Article titled “infrastructure led development” published in 2006, Agenor P. R. argues that, growth rate depends on the interactions between infrastructure, health services and savings. Infrastructure raises the economic ability to produce health services, in turn greater access to health services enhances workers productivity and thus output. Thus the accumulation of human capital results not only from the acquisition of knowledge but from better quality of effective labour, compatibility of infrastructure services leads to efficiency in service delivery especially in rural areas. He notes that; lack of infrastructure continues to be a key obstacle to growth and development in many low income countries. In sub sahara Africa in particular, only 16% of roads are paved and less than one in five Africans has access to electricity, and Africa’s transport costs are the highest in the world. Based on economic regressions, the study also found that poor and inadequate infrastructure accounts for 40% of predicted transport costs of coastal countries and up to 60% of land locked countries. To alleviate these constraints to growth and poverty several observers have advocated a large increase in public investment in infrastructure in line with the “Big push” view of Rodan (1943). A common argument for doing so is that, infrastructure services have a strong growth prompting effect through their impact on production costs, the productivity of private inputs and the rate of returns on capital.

Empirical evidence according to Dissou and Didic in their publication; “infrastructure and growth”; published in Nov, 2013, demonstrate that, infrastructure growth may just be the single most important determinant of poverty reduction as sighted by different writers; (e.g. Lopez and Servén, 2004; Dollar and Kraay, 2002; Fanta and Aupadyay, 2009). Through its positive contribution to economic growth, infrastructure investment presents a powerful tool that policy makers can use to reduce poverty and raise living standards; at the same time, investment in transport, healthcare, water, sanitation, Education, telecommunication and energy, can directly improve the welfare of the poor simply by providing access to basic needs.

Therefore, the benefits of infrastructure development for poverty reduction are manifested through 2 main channels: through the effect on income distribution; and through the effect on economic growth. The income distribution effect of infrastructure brings about improved

employment and earnings prospect for the poor as a result of growth in the non-agricultural sectors of the economy and by increasing productivity in both agricultural and non agricultural sectors. Focusing on Education, the importance of human capital in facilitating economic growth and in raising living standards, is widely recognized in policy and academic circles. Education provides an important foundation for both public and private strategies to develop human capital

In line with Agenor P. R. & Dissou Y. et al's approach, the scholar is of the view that successful provision of socio economic infrastructure services in informal and unplanned settlements is relevant to urban development as major drivers to economic growth and development vital for improved living standards. A combination of various factors will lead to economic growth including; National income, gross domestic out put, level of exports and imports; however these are all driven by good socio-economic infrastructre. It was in seeking to address this that the researcher took a look at the influence of socio economic infrastructure on economic growth in Dandora suburb with a view of proposing sustainable framework for infrastructure provision in the suburb that can steer the area's economic development

### **1.2 Intervention measures**

In Basset et al (2002), the provision of improved infrastructure and services to informal settlements is another central component of upgrading and one with the greatest record of success. Upgrading projects have aimed at providing infrastructure services such as water, sanitation facilities, roads and street lighting; ina manner that is affordable to the urban poor. For example, in his book; "Changing the rules of Development", Springer (2015), writes about Urban innovation and upgading in China shanty towns as one of the most successful interventions in the provision of basic infrastructure in informal settlements. He writes: "Shantytown reconstruction, infrastructure planning, and urban environment", the province carried out infrastructure and housing construction simultaneously; cities of the province exerted themselves in garbage cleaning, landscaping, and greening, which radically improved the appearances of the cities. The province set up a "green land threshold" which fixed a minimum green coverage rate of 25% for the newly reformed areas, in so doing, the urban green area in the province increased remarkably".

The study noted that there have very little efforts in terms of improving the socio economic infrastructure status of the study area. However the study suggested the following measures that can be taken into account to improve the nature and status of infrastructure in Dandora

II: The government should extend support towards development and maintenance of existing infrastructure, prioritizing solutions to the security challenge in the study area, community sensitization and policing, proper planning of the estate especially the housing section and increasing investments towards infrastructure provision. The study population believed that measures such as public private partnerships, starting of cottage industries, community empowerment, good political will and pro poor planning laws would help put the infrastructure provision challenges in order. The study also suggested constant government support of Dandora II, developing and maintenance of existing infrastructure services and providing an enabling environment where both the government and community are stakeholders as a way to ensure sustainability of the infrastructure projects.

### **1.1.0 Objective of the Paper**

The objective of this paper is to analyze the socio economic relationship between infrastructure development and economic growth in Dandora II village, Embakasi North, Nairobi.

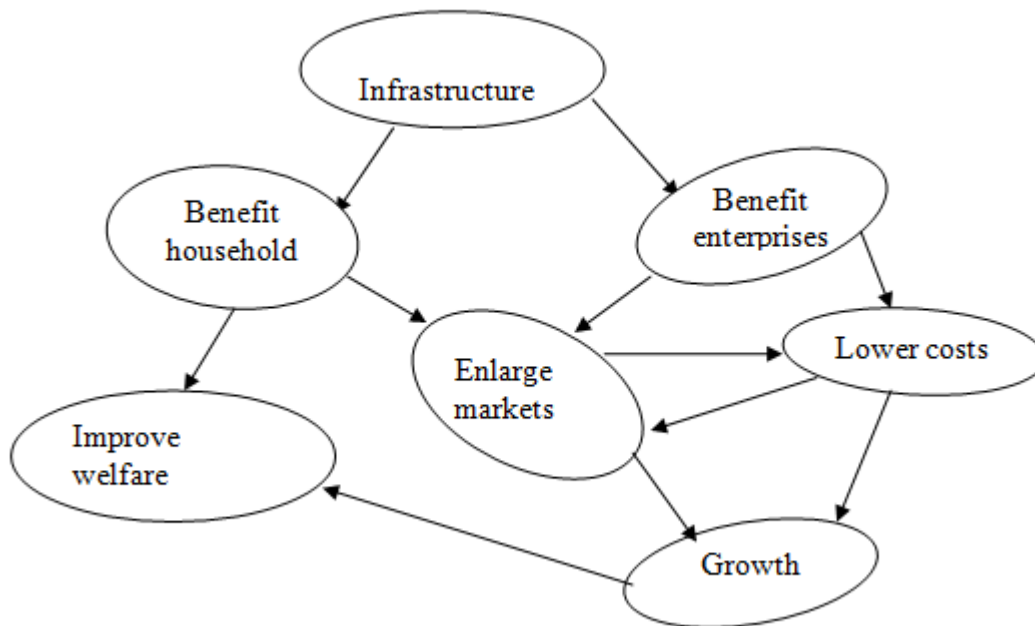
### **1.1.1 Methodology**

The study is based on both primary and secondary data: Primary data was based on a field study conducted between September 2016 to July 2017 on “Inadequate socio-economic infrastructure is one of the factors slowing economic growth of Dandora II village; secondary data was collected from different sources like; Reports on infrastructure and growth of various years, data and literature of various growth theories and empirical studies. The quantitative research was in form of closed ended questions in a questionnaire and provided numerical evidence to allow statistical analysis. Open ended questions in the questionnaires, semi structured in-depth interviews and observations constituted the qualitative part of this research. Both qualitative and quantitative data were collected concurrently and the results of the two methods were integrated during the interpretation phase. The Research was conducted in Dandora Area 2 suburb Embakasi North, Nairobi. It was considered the area of choice in order to effectively undertake the study as the area is the “heart” of Dandora suburb and the major infrastructure elements; roads, schools, trunk sewers and trunk water systems pass through the area. Unlike the other phases in Dandora, Phase 2 has different social economic dynamics, hence, provided an opportunity to test integrated infrastructure planning and provision.

## 2.2 Discussion of the Findings

This section provides a discussion of how socio-economic infrastructure influences economic growth in Dandora II

**Figure 1: The influence of socio-economic infrastructure on economic growth**



*Source: Prud'homme (2004)*

For sampling techniques Multistage probability technique on ninety two (92) households; where the researcher divided the study population into four(4) clusters and then simple random sampling of twenty three (23) household from each cluster was carried out. The researcher then used purposive non probability technique to gather data from key informants, with a target of four (4) respondents. From these two probability techniques that were adopted, guaranteed that every household in Dandora area 2 had an equal opportunity for selection.

According to Estache (2007), the linkage between infrastructure and economic growth is multiple and complex, because not only does it affect production and consumption directly, but it also creates many direct and indirect linkages, and involves large flows of expenditure thereby creating additional employment. In this context, infrastructure affects output in two ways. One is the direct channel where infrastructure increases the output by reducing the cost of intermediate goods. The other channel is through externality effect. This channel works



through higher human capital returns due to education, good quality health and higher efficiency of human capital due to lower marginal depreciation of capital thus, impacting on the households.

The experience across the world has shown that increase in stock of infrastructure is associated with the increase in output and the quality of life of the people, especially the standards of living and quality of the life of the people directly depends on the availability of infrastructural facilities. Progress in the developing countries will require improving the access of the poor to essential public services. The poor suffer not only from low incomes but also from inadequate access to public services essential to their health and productivity. As many of these services, such as sanitation and water supply, cannot be privately purchased, an expanded public program for wider distribution of services must be an important element of strategies to alleviate poverty, (Estache, 2007)

### 2.2.1 Presentation of Research findings

The researcher administered ninety two (92) questionnaires to randomly selected house holds in Dandora II and of these, were four (4) purposed interview schedules with key informants who included the area assistant chief, the Embarkasi north social services officer and two school heads. The researcher was able to employ two research assistants who helped in administering of the questionnaires. As indicated in the table below, out of the 92 questionnaires administered, only 64 questionnaires (70%) were fully responded to while the rest were either not handed back or not attempted at all by the respondents.

Among the questionnaires that were not handed back, 8(9%) had been destroyed by some politically motivated youths who presumed the research to be politically manipulated and demanded for protection fees from the research assistants in Dandora phase 2a and Dandora phase 2c; 5(5.4%) were returned blank and 15(16.3%) questionnaires were not returned. This all contributed to 28(30%) no response to the questionnaires. For the key informants interviews, the researcher had scheduled to meet four (4) key respondents whom she all met successfully.

**Table 2.1: Household Participation Response**

Response	Frequency	%
Participated	64	70
Declined	28	30
<b>Total</b>	<b>92</b>	<b>100</b>

Source: Study Findings, 2017

### 2.1.1 Household response per cluster.

In the study the researcher assigned 92 questionnaires as per the sample size in section above. In total 64 questionnaires were fully answered to and formed the sample size for this study. All areas (Dandora 2a, 2b, 2c, 2d) as clustered by the researcher in section 3.5 were assigned equal number of questionnaires of 23 each. The table below shows the number of respondents per cluster

**Table 2.2: Household Cluster Sampling Frame**

Cluster	Sample size	Responded
Dandora 2a	23	14
Dandora 2b	23	16
Dandora 2c	23	15
Dandora 2d	23	19
<b>Total</b>	<b>92</b>	<b>64</b>

Source: Study Findings, 2017

In Dandora 2(d) there was greater cooperation from the respondents, the research team encountered some challenges from cluster 2a and 2c respectively. Several youths in the areas disrupted the process of administering questionnaires as they had thought that the team was on a political mission; with the field study being undertaken at a time when the general election was approaching this did not come as a surprise. Nevertheless, in all the instances, the research team was able to explain and convince the youth of the nature and purpose of the study by producing the research permit from the National commission for science, technology and innovation.

### 2.1.2 Gender distribution of respondents

**Table 2.3: Dandora II respondents Gender distribution**

Gender	Frequency	%
Male	38	59.4
Female	26	40.6
<b>Total</b>	<b>64</b>	<b>100</b>

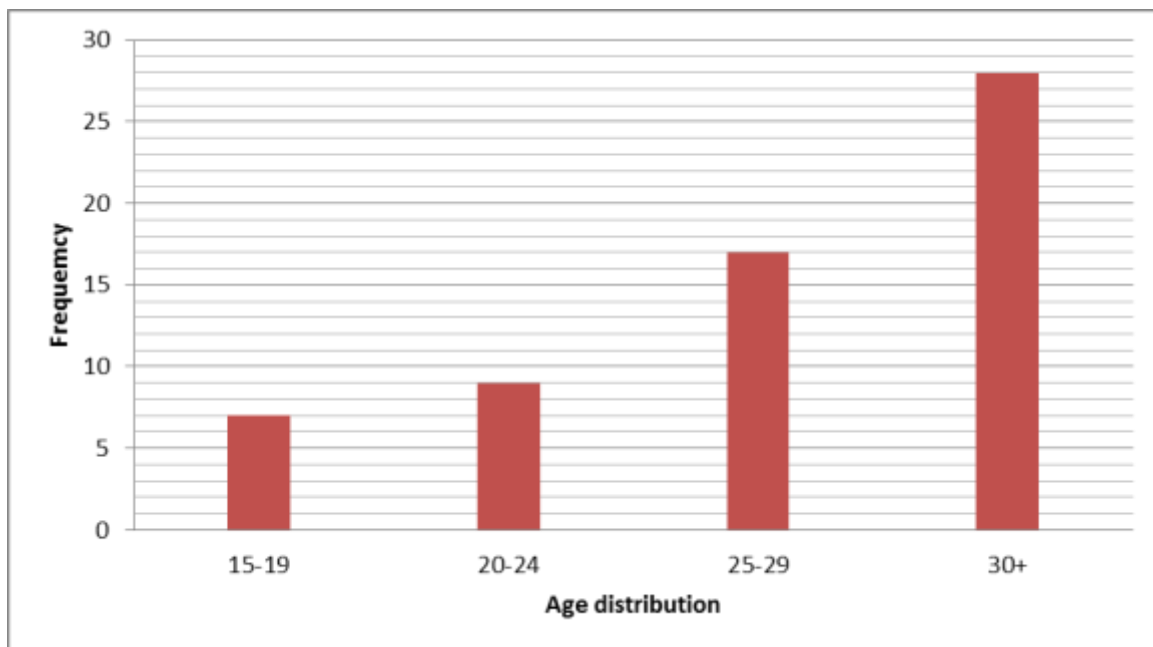
Source: Study Findings, 2017

Considering a gender perspective, gender differences are socio-economic determinants towards a society’s growth in a way that, a community with more men tends to be more politically driven than domestic focused, thus, social pivot drivers of education, health and cohesion are in many cases compromised as the study revealed in Dandora area 2 evident in the high insecurity levels.

Communities with high female numbers are more family focused since women incline much towards building the family and therefore their children and husbands as compared to political male households. Demography is an important factor for development.

**2.2.1 Respondent’s Distribution by Age-Group**

**Figure 2: Dandora II respondent’s age distribution.**



Source: Study findings (2017)

Productive youths should be one of the main economic assets for any community; a declining proportion of people below the age of 25 shows increase in working population, thus lowering dependency ratio and opening a window for development.

**2.3 Education level of the respondents**

**Table 2.4: Respondent’s Education Level**

Education Level	Frequency	%
Primary	11	17.2
Secondary	24	37.5
College	10	15.6

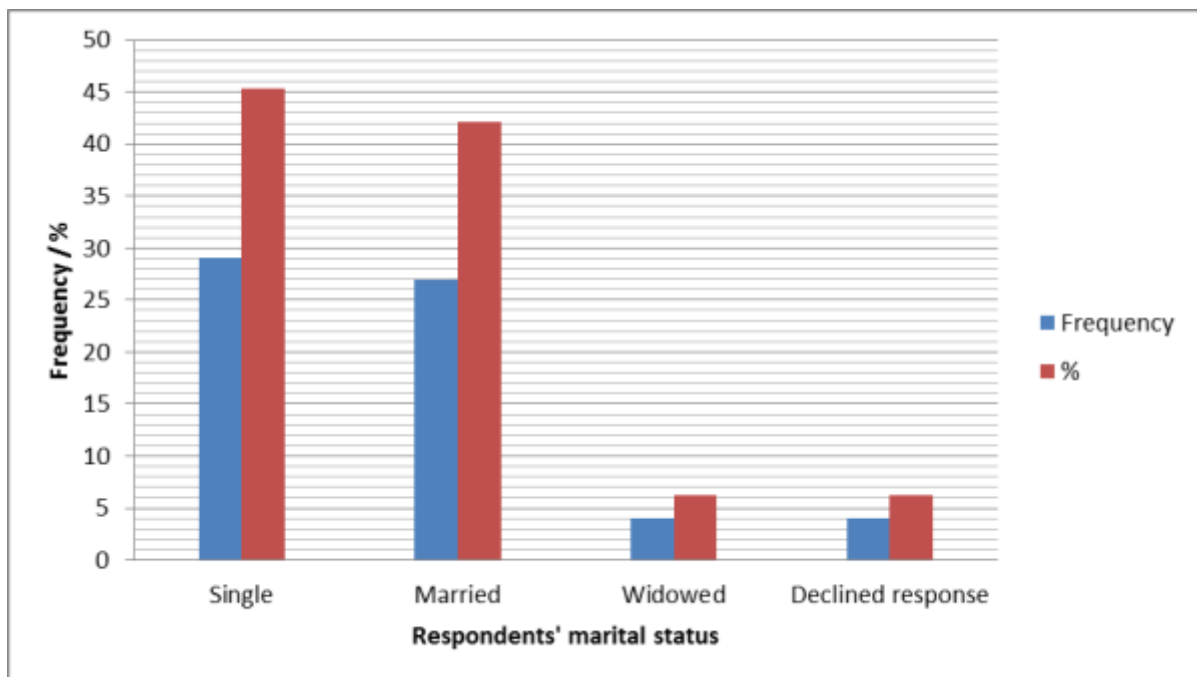
University	11	17.2
Post graduate	3	4.6
None	4	6.3
Others (informal training)	1	1.6
<b>Total</b>	<b>64</b>	<b>100</b>

Source: Study Findings, 2017

The study area therefore shows a window for growth and eventually development if there where avenues of putting the population to productive employment, thus, increasing their income. Dissou (2006) argues education and training can improve economic growth and prevent poverty and exclusion. Education training and functioning labor are prerequisites to reap the benefits of progress through the demographic transition. Education for men and women as well as vocational training programs in the growing sector of a community increases the chances of citizens to earn a stable income. Investing in human capital contributes macro economic growth and promotes gender equity. It is evident from the study that Dandora 2 needs a boost towards tertiary education if realistic growth is to be achieved with time

**2.3.1 Marital status of the respondents**

**Figure 3: Dandora II Respondents’ Marital Status**



Source: Study Findings, 2017

Family life is the foundation for every socio development initiatives. The study revealed that 33 person of every 64 people in the study area were single; a very risky pattern towards family-life a foundation of every community. Gender and development focuses on the fact that there are higher productive tendencies in families where both the parents are present as compared to the families where one of the parents is present.

Religious researchers have also shown that there is stability in married families than single families in terms of child up- bringing, health care habits and productive income accountability due to the responsibilities in the family set-up. Psychologically, married people have emotional back-up from one another, positively contributing towards good learning environment for children, and also health wellbeing of the community. There is a big correlation between marital status, education and health care in a community. Dandora 2 shows a deficiency in family life, thus negatively affecting its education outcomes and health care indicators

### 2.3.2 Respondent's Occupation

**Table 2.5: Dandora II Respondent's Occupation**

Occupation	Frequency	%
Hair dressing	5	7.8
Market vendor	5	7.8
Teacher	3	4.7
Student	5	7.8
Jua kali	17	26.5
Business	8	12.6
Casual jobs	15	23.5
None	6	9.3
<b>Total</b>	<b>64</b>	<b>100</b>

*Source: Study Findings, 2017*

Cernansky (2006) stated that the major livelihood of residents in region 2, 3 and 4 is working at the dumpsite; the study indicated that, occupation patterns in Dandora 2 as follows; 3(4.7%) persons of every 64 are part of the formal sector, 32 of every 64 are in the informal sector and 10 of every 64 are in semi formal employment. Correlation facts between

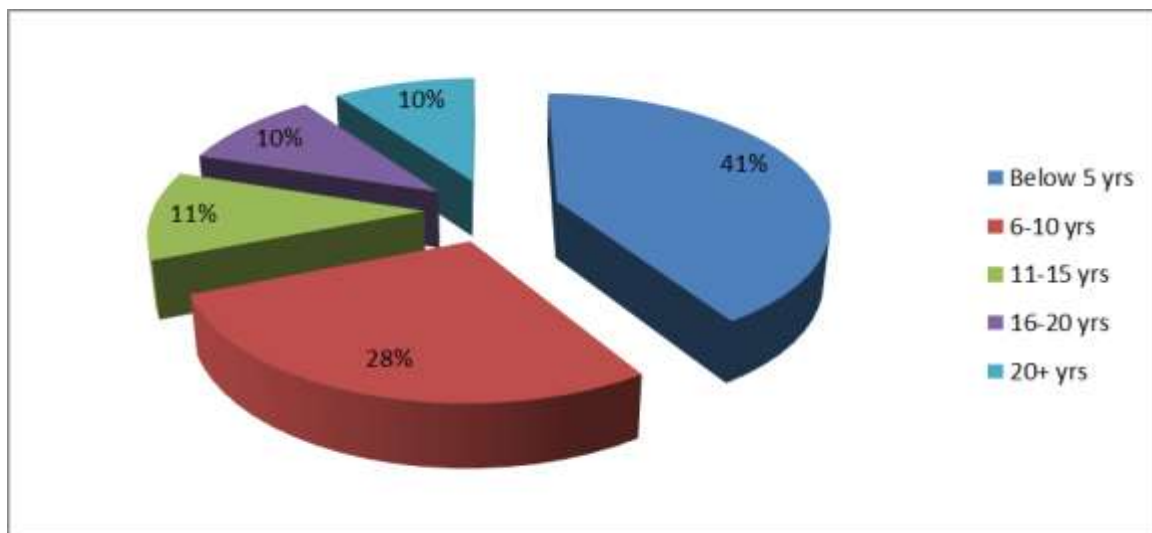
education and employment patterns cannot be overlooked in this community: Communities with populations who have attained tertiary education stand high chances of formal employment and entrepreneurial practices, thus, growing industrial sector as compared to those with low tertiary education population as reflected in the study area.

**2.4 Barriers to economic growth in Dandora II**

The study revealed that 26 of every 64 person in Dandora II had lived in the area for less than five years while only 7 of every 64 person had lived in the area for more than 21 years.

The residents’ turnover and impermanence is because of the high level of insecurity in the study area that is development scaring, thus people tend to move to other areas where they presume would be friendlier. The longer a population stays in an area the better in terms of planning since they know the challenges of the area and can best propose ways of countering the challenges. This explains why Dandora despite being one of the oldest suburbs has not made progress towards development as compared to her neighbors.

**Figure 4: Duration of Respondent’s Stay in the Study Area**



Source: Study Findings, 2017

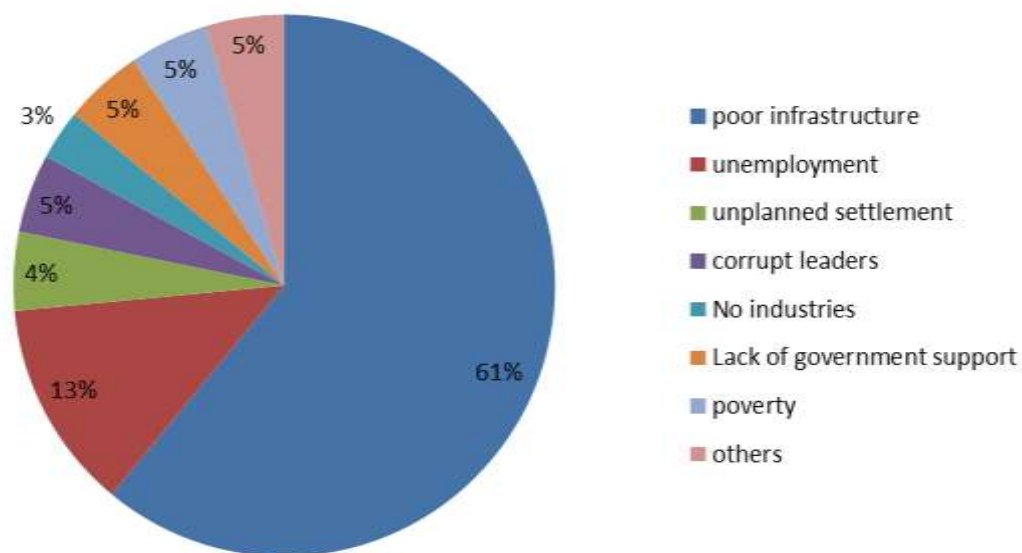
**2.5 Determinants of slow economic growth in Dandora II**

The Africa Development Bank (2013) stated that some of the causes of slow economic growth in many Sub-Sahara countries is attributed to; lack of resources for early stage project investment, political misplaced priorities, and insecurity.

The study established insecurity is number one hindrance factor to investors from initiating development projects in Dandora as a suburb yet a lot remains untapped. A discussion with

the area assistant chief noted as he said; “ward administrators had contacted both Naivas and Tusksys supermarkets to extend their services to the suburb because it has a good population; the proposal was turned down because the presumed investors sighted insecurity as a great risk to their business”. He also said, “the youth in the suburb have vandalized all the street lights that had been put in the suburb during the previous regime as a way of improving security in the area which has left most parts of the suburb almost impassable at night due to darkness”. Insecurity in a wing of infrastructure and together with old potholed roads, overflowing sewerage in the estate especially in area 2c and 2d, unemployment among the youths among other factors are a draw back towards growth and development in the study area. The chart below summarizes respondents answers.

**Figure 5: Factors Slowing Economic Growth in the Study Area**



Source: Study findings (2017)

In Dandora II village, most of the respondents in the study (71.9%), indicated that there were tenants while 25% were land lords. This is a sign of impermanency of the residents who may less commit to development projects of the area. While 67.2% of the housing structures were used for residential purposes, only 9.4% were used for commercial and 20.3% for residential cum commercial purposes. The study revealed that 63% of the respondents lived in stone walled houses and only 2% in iron walled housed. More than 10 respondents indicated that 6 homesteads shared the same compound, 4 homesteads shared the same toilet and bathroom

facilities, a sign of congestion. The study also noted through observation that some residential places had been turned into private primary schools especially in Dandora 2b and 2d respectively. The number of respondents who did not have school going children was 50% who sighted reasons as either having no children, their children finished school as others did not have school fees . Of the school going children, the research revealed that 28% attended private schools while 15% attended public schools and 7% religious schools. In a discussion with the head teacher of St. bill community private primary school, only two public primary schools existed in the study area; Wangu primary school and James Gichuru primary school and one Dandora secondary school. The quality of education most respondents believed was fair.

Access to medical services as shown in the study indicated that 47% of the study population go to public hospitals, however, in neighboring estates especially Mama Lucy in Kayole and Pumwani, since there is not a single public hospital in the study area; 48% accessed services from private hospitals from not within the study area. The quality of healthcare received in the neighborhoods the respondents believed was fair. Most roads in the area were not tarmac and through observation the researcher established that even the few tarmac roads in Dandora II had potholes, Dandora 2b had newly pebble stoned road. The common mode of waste disposal was in polythene bags and collected by youth groups once every week. Other residents wasted their garbage in dustbins and open space. There were no public health facilities, the area has one banking facility, most areas in the study area lacked access roads and market centers; which are the major socio economic drivers of growth in any given location. Insecurity an element of socio economic infrastructure is the key factor that has threatened growth in the study area as revealed by the area assistant chief during the study. It is therefore worth noting that inadequate socio-economic infrastructure negatively impacts on economic growth not only in Dandora II, but many low income suburbs in modern towns and cities.

## **2.6 Factors Influencing slow economic growth in Dandora II**

GiveWell (2013) argues that; in Africa, lack of adequate infrastructure ranks high basic impediments to economic growth in most sub-Saharan African countries one of the reasons why most African countries with the exception of South Africa suffer from poor information & communication infrastructure. Poor infrastructure in cities affects the economic performance of the private sector as well as the living conditions of the citizens. The increase



of informal settlements means that, hundreds of thousands of people live in substandard housing structures with lack of proper facilities like drainage, sewerage, electricity, water and paved roads. In order to reach the 7% annual growth calculated to be required to meet MDGs by 2015, Africa required infrastructure investment of about 15% of GDP or around US dollar 93 billion a year; in fragile states over 30% of GDP would be required.

In a recent report of the Africa Development Bank on infrastructure in Sub-Sahara Africa, inadequate infrastructure may directly reduce welfare and create an obstacle to private investment. Give Well sites the following as some of the cause of poor infrastructure in Sub-Sahara Africa; lack of resources for early stage project investment in activities such as feasibility study and project planning; sub-optimal regulations that deter investment; lack of donor interest in infrastructure relative to other priority sectors; there are greater political benefits to new road constructions than spending on road maintenance which is significantly expensive; poor prioritization directs government funds to wrong projects; political instability leads to many African countries concentrating on politics than development, (GiveWell 2013)

Bad choice by many leaders have for many years been critical factors when it comes to slow economic growth in the region. Many leaders have misplaced priorities which are basically in self service and political gains as compared to nation development. This combined with poor economic policies by the same governments hinder access to international markets which is as a result of inadequate infrastructure. Most goods consumed in African countries are imported and this has a negative growth effect on the domestic sector as it sidelines the local entrepreneurs and innovators. Bad leadership is coupled with political instability; civil and tribal wars which has left many countries torn apart. Post war countries suffer from destroyed infrastructure a backbone to many development projects worldwide. These lead to poverty, lack of higher education and poor delivery of public services lowering the real income and thus consumption of the citizens (Twumai 2003)

The study population indicated the following as the factors slowing economic growth in Dandora II: bad roads, insecurity, poor infrastructure, unplanned settlement, corrupt leaders, unemployment, lack of industries, lack of government support and poverty among others. 42% of the study population indicated that inadequate infrastructure was a valid factor for

the study area's slow growth, well as the key informants indicated that security was key in scaring away of potential investors and entrepreneurs.

The researcher also noted that most of the residents in the study area were low income earners as indicated by their occupation audit in the study. Through observation the researcher realized that most of the residents in the study area were vegetable vendors and many did odd jobs like pushing carts and welding of metals for a living. The study as indicated 66.6% of the study population suffers from inadequate public education facilities as provision is left in the hands of private providers where quality may not be guaranteed.

### **3.0 Challenges of socio- economic infrastructure provision in Dandora II**

According to Hove M. et al (2013), the challenges of improving informal settlements can be overwhelming. The primary challenges in provision of improved infrastructural services in informal settlements is achieving some kind of coherence in the community and finding solutions to a wide range of needs. Since informal settlements are not homogenous, there exists many diverse vested interests. Mejia (1994) notes that, apart from the urban poor who live in the informal settlements just because it is cheap, there could be criminal elements who take advantage of the informal settlements to perpetuate their criminal activities. There are also landlords who make money from renting out structures to the residents. There are also service providers who take advantage of the compromised standard of living. These groups of people in most cases have been known to frustrate improvements of infrastructural provision in informal settlements as they consider such development a threat to their survival.

Poor infrastructure in Nairobi is closely associated with the rich exploitation of the poor; for example, Dandora community development project to the east of the city was implemented between 1975 & 1977 and financed by the World Bank and Government of Kenya jointly. It consisted of 6000 serviced plots of 100-160 metres each with individual water, sewer and sewer connections, access to road, security, lighting and refuse collection services. The project included community facilities such as, primary schools, health centres, multipurpose community centres and market stalls (UNCHS, 1987; Lee smith & Memon, 1988; Syagga & Kiamba, 1988). These were meant to target the poor holds, however, the beneficiaries turned out to be high income earners who turned the intended poor residents into tenants (Mazingira institute, 1993)

The study revealed various challenges affecting provision of socio economic infrastructure in Dandora II. The respondents believed that: there is lack of government support, corruption of those in leadership who divert public funds for their own benefit, land grabbing, the estate is forgotten by the government, lack of community involvement in the Development and maintenance of projects, political sidelining of Dandora by the government since it is one of the opposition's strongholds, bad leadership, the area is an informal settlement and poor planned housing system among others. In a discussion with the key informants, the study revealed that the main challenges affecting provision in the area is insecurity which has scared away potential investors, for example Tuskys and Naivas supermarket owners have been contacted to start business in the study area, however, expressed their fear to invest in the area because of the presumed high insecurity in Dandora as an estate. The assistant chief believed that poor planning especially in the housing sector has led to residents building haphazardly blocking the motor access routes in some parts of the estate. The researcher through observation learnt that the residents in Dandora 2d had built up to the Mathare river reserves at some point in area 2d diverting the flow of the river, thus, interfering with the ecosystem in the river.

### **3.2 Summary and Conclusion**

Infrastructure services are essential to achieve development targets in any economy, some of its major dimensions include the level of economic growth, level of education, level of health services, degree of sanitation, level of nutrition, quality of housing, distribution of goods and services, and access to communication. But neither human well-being nor of economic growth is possible only through the provision of economic infrastructure as well as social infrastructure. Health and education along with support infrastructure such as shelter, sanitation, power, auxiliary services, and road connectivity that can give economic growth a human face. By improving the quality of human resources and enhancing capability, these indicators act as stimulants to growth. It is true as stated by P.R. Agenor that, "Infrastructure sector may not always be an engine of growth directly but they are essential rails on which the wheels of economic progress can proceed with sustained speed. Without a strong and viable infrastructure, it is difficult to achieve rapid and sustained growth of the order of 7 to 8 percent, which is necessary for progressively eradicating

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