

# **Lack of Infrastructure: The Impact on Economic Development as a case of Benadir region and Hir-shabelle, Somalia**

Prof. Hassan Osman Gaal, PhD

Dean, Faculty of Economics and Management Science, Somali National University

Mr. Nor Abdulle Afrah,

Master, Director of Hr and Training. Benadir University

## **Abstract**

The purpose of this study is to investigate lack of infrastructure: the impact on economic development as a case of Benadir region and Hir-shabelle in Somalia. A survey research method was adopted to examine the impact of lack of infrastructure on economic development. The data were collected through questionnaires filled by the respondents equally.

The results of the questionnaire were analyzed by using SPSS version 16.0. The results showed that lack of infrastructure brings poor standard living, economic deficit and improves poverty.

**Keyword:** Lack of Infrastructure, the Impact on Economic Development, Benadir Region and Hir-Shabelle.

## **1. INTRODUCTION**

Infrastructure is the basic equipment and structures such as roads and bridges that are needed for a country, region, or organization to function properly. Infrastructure contributes to economic development by increasing productivity and providing services, which enhance the quality of life. The services generated as a result of an adequate infrastructure base will translate to an increase in aggregate output such as increased agriculture output of farmers through improved roads, creation of a sea ports, Rail links., Electrical generation, transmission and distribution, Water and irrigation projects,- Increase quality of life and Urbanization of different areas (Akinyosoye, 2010)

Majority of poor people in the world live in rural areas where the level of public infrastructure especially roads seems low. The inadequate roads and poor road access put high cost of transportation; reduce ability to use access high quality inputs; limit the uses of local markets to the sales of their products, the purchase of consumer goods and opportunities for off-farm employment. Poor road access has put nevertheless constraints for rural poor people in terms of access to other social infrastructure such as education and health facilities. Therefore, improvement of rural road seems to be a clear means by which large numbers of people might acquire the opportunity to participate in the market economy and thereby raise themselves out of poverty (Oraboune, 2008)

Infrastructure is a key element of poverty alleviation. It often acts as a catalyst to development and enhances the impact of interventions to improve the poor's access to other assets, e.g., human, social, financial, and natural assets. Its impact is felt both on the economic and social sectors. Without roads, the poor are not able to sell their output on the market. In India, it has been shown that roads alone account for seven percent of the growth in aggregate output of the rural areas. Without electricity, the industrialization process, which provides the poor an important source of employment, is unlikely to take off. In Costa Rica, a retrospective review of the rural electrification experience through electrification cooperatives indicates that for one of these cooperatives the number of major businesses jumped from 15 to 86 after electrification. Without potable water and sanitation health is at risk. The social and economic impact often go hand in hand (Pouliquen, 2000)

Many of the world's poor people live in rural areas isolated by distance, terrain and poverty from employment and economic opportunities, markets, healthcare and education. Lack of basic infrastructure such paths, trails, bridges and roads and access to transport services makes it difficult for poor people to access markets and services. There is clear evidence that rural isolation is associated with low agricultural productivity linked to poor market access and low use of fertilizers and modern agricultural technologies. It is also linked with poor health and low school enrolment. Rural isolation can imprison the elderly and people with disabilities. Good

transport infrastructure is a necessary condition for economic growth and poverty alleviation, but transport investments alone cannot address the problems of the poorest households (Starkey & Hine, 2014)

The adequate supply of infrastructure services has long been viewed as essential for economic development and poverty reduction, both in the policy and academic realms. More recently, increasing attention has also been shifting to the impact of infrastructure on poverty and inequality (Ariyo and Jerome, 2004; Calderon, 2008; Estache and Wodon, 2010; Ogun, 2010).

Over the last two decades, considerable efforts have been devoted to theoretical and empirical evaluation of the contribution of infrastructure to growth and economic development (Programme, 2011)

Poverty reduction requires economic growth which, when accompanied by sound macroeconomic management and good governance, results in sustainable and socially inclusive development (ADB 1999). Greater access of the poor to education and health services, water and sanitation, employment, credit, and markets for produce is needed. Moreover, the vulnerability of the poor to economic shocks and natural disasters must be reduced to enhance their well-being and encourage investment in human capital and in higher-risk and higher-return activities. Public policy reforms and investment in physical infrastructure will significantly contribute to the pursuit of socially inclusive development (Ali & Pernia, 2003).

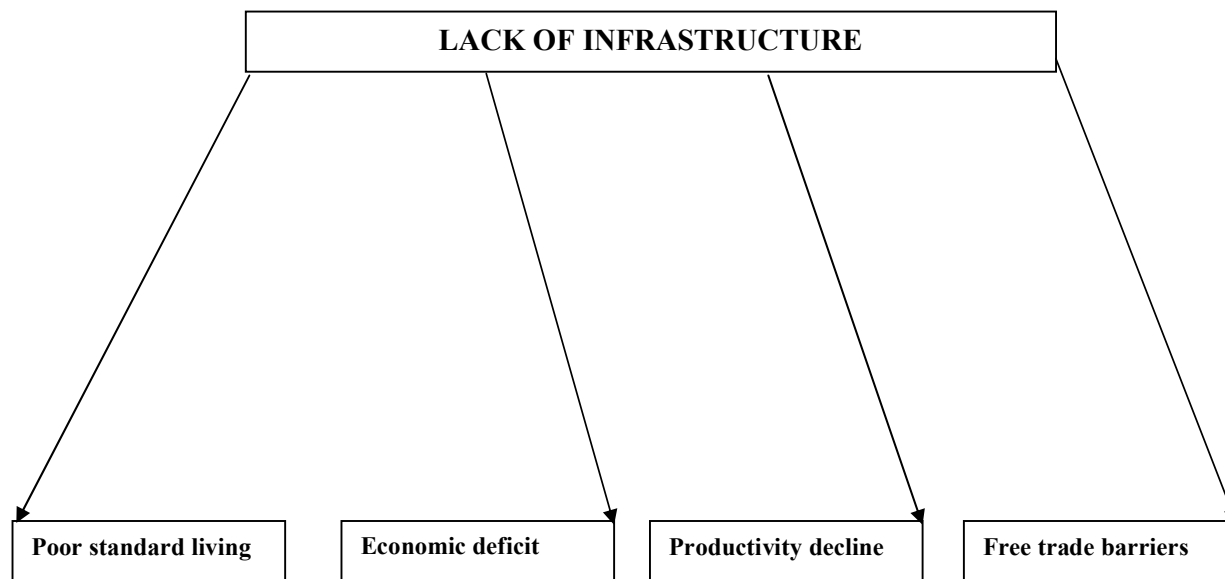
Roads, railroads, ports, lighthouses, fairways, inland waterways and airports with navigation systems for flight traffic make up the transport infrastructure system. Transport infrastructure systems are often seen as one of the core areas of any government's activities. Over time and in most countries governments have been involved in the introduction of, the construction and maintenance of infrastructure systems. This involvement has led governments to take on a large number of roles in the transport infrastructure sector such as; regulator, financier, owner with responsibility for construction and maintenance and also in many cases with heavy involvement in the organizations carrying out transport services (Hasselgren, 2012).

Sub-Sahara Africa vestiges the poorest region of the World despite the recent noticeable increase in per capital income growth rates of many countries in the region. Thanks to decades of economic stagnation, poor standard of living, ethnic cleansing and tribal wars, political instability and environmental disasters which had left infrastructure development uncared for. Infrastructure are public goods and services that goes into the production process as Complementary inputs for traditional factors of production such as capital, labour and Entrepreneur. They help to increase returns on investment by reducing production cost and improving transition efficiency (BELLO & OSINUBI, n.d)

The availability of infrastructure facilities and services as well as the efficiency of such services to a large extent determine the success or otherwise of all other production endeavours. Investments in infrastructures such as energy, water, transportation and communication technologies promote economic growth and help to alleviate poverty and improve living conditions in developing countries (OECD, 2006)

Somalia is a country situated in the Horn of Africa. It is bordered by Ethiopia to the west, Djibouti to the northwest, the Gulf of Aden to the north, the Indian Ocean to the east, and Kenya to the southwest. Somalia has the longest coastline on Africa's mainland and its terrain consists mainly of plateaus, plains and highlands. The destruction of the country engulfed not only the bridges that link the regions together in economic wise, but devastated roads, water, transportation, education, communication, electricity, hospitals and all that may contribute the development of social infrastructure as well, thus, lack of infrastructure makes the economic development retarded, therefore, to the researchers' best knowledge; there is no proof in the literature with respect to studies that examine the relationship between lack of infrastructure and economic development, however, this current study explores the impact of lack infrastructure on economic development.

## CONCEPTUAL FRAMEWORK



As the conceptual frame work postulates, lack of social infrastructure promotes, poor standard living, economic deficit, productivity decline, and free trade barriers that have negative impact on economic development.

### 2. LITERATURE REVIEW

Infrastructural services support trade whether or not they themselves are traded. Increasingly, however, they are tradable and traded, and opening up to trade in these services is one channel through which quality can be improved and costs reduced. The Section finally discusses the interface between domestic and international regulation when infrastructural services are traded, focusing on how to improve effectiveness and efficiency. One subsection is dedicated to each of the four infrastructural services sectors (Report, 2004)

#### a. Transport Services

Various factors determine different transport costs across countries. Distance from major markets and other geographical characteristics are only two of these factors. For example, it is estimated that doubling distance increases overall freight rates by between 20 to 30 per cent<sup>46</sup>, and that landlocked countries face, on average, 50 per cent higher transport costs than otherwise equivalent coastal economies (Limão and Venables, 2001). Other important factors affecting transport costs are the extent of a country's trade imbalances, the type of products that a country exports or imports, the degree of containerization of transport, the traffic on specific routes, the quality of transport infrastructure, and the efficiency of related transport services.

High transport costs will be an obstacle to trade and impede the realization of gains from trade liberalization. Differences across countries in transport costs, including relative costs between different modes of transport, are a source of absolute and comparative advantage and affect the volume and composition of trade. For example, a country with relatively lower air transport costs may have a comparative advantage in time-sensitive goods.

#### (i) Sea transport

World seaborne trade amounted to 5.9 billion tons of loaded goods in 2002, up by 0.8 per cent from the previous year. In 2002, the share of seaborne exports of developing countries was equal to 49.4 per cent; while that of developed countries was 40.4 per cent.<sup>48</sup> Sea transport represents for many countries the most important mode of transport for trade. For example, for Brazil, Chile, Colombia and Peru over 95 per cent of exports in volume terms (nearly 75 per cent in value terms) is seaborne.

### ***(ii) Land transport***

Land transport includes road transport, rail transport and pipelines. In the United States the share of total trade transported by land is **34** per cent. Of this, freight transport by road is the principal mode of land freight transport, accounting for **60** per cent of total trade (in value terms) by land.

### ***(iii) Air Transport***

Air transportation is particularly important for time-sensitive products such as agricultural products and intermediate inputs traded within international production networks. In 1995, the most important air cargo commodities in US trade, by weight, were machinery parts (10 per cent of trade), electronics (13 per cent), high-tech instruments (4.6 per cent) and cut flowers and fish (each representing 4 per cent of trade) (OECD, 1999). Low air transport costs relative to ocean transport costs, for example, may contribute to creating comparative advantage in time-sensitive goods.

### ***(iv) Integrated transport and logistics services***

Total logistics costs (packaging, storage, transport, inventories, administration and management) are estimated on average at 20 per cent of total production costs in OECD countries. Transport usually accounts for a quarter of total logistics costs, storage for a fifth and inventories for a sixth. Integrated transport and communication links are essential for cost-efficient transport networks. Border delays, transport coordination problems and direct charges that may be required by transit countries constitute an important part of trade costs. After controlling for the distance between countries, empirical analysis suggests a positive border effect on trade – that is, adjacent countries trade more than two otherwise identical countries for reasons other than distance.

The lack of infrastructure is hindering the economic growth in many developing countries. Infrastructure investment has the effects of contributing to increase the productivity and it is expected to contribute to future economic growth in developing countries where infrastructure is still insufficient. Therefore, infrastructure development is one of the most integral parts of the public policies in developing countries. Supporting infrastructure development in developing countries by advanced countries is extremely important field. This can be inferred from the fact that many international organizations such as World Bank and OECD are actively promoting the improvement of infrastructure by providing various support programs to developing countries. However, the precise relationship between infrastructure and economic growth is still frequently debated. Good infrastructure helps to raise productivity and lower costs in the directly productive activities of the economy, but it has to be expanded fast enough to meet the demand for infrastructure in the early stage of development (KIM, 2006)

## **3. METHODOLOGY**

### **3.1. Research Design and Target Population**

This study employed a descriptive design. It is quantitative in nature. In analytical research, the researchers have to use facts or information already available, and analyze them to make a critical evaluation of the material. The function of research design is to provide for the collection of relevant information with minimal expenditure of effort, time and money (Catherin, R, & Ranji, 2002). The study was conducted in survey research approach. Surveys are information-collecting methods to describe, compare, or explain individual and societal knowledge, feelings, values, preferences, and behavior (Fink, 2009). This study was conducted between Benadir region and Hir-shabelle regional autonomy. The researchers selected those regions because they are the main regions that have had trade relationships. The sample size of this study consisted of 90 respondents respectively.

### **3.2. Sampling Procedure**

In this study, purposive sampling technique was employed According to Amin (2005). Purposive sampling is the type of sampling where the researcher uses his/her judgment or common sense regarding participants from whom the information was collected. The researchers used purposive sampling in order to choose the respondents they believe to have the information concerned the study by using their own judgment, and then the researchers distributed the questionnaire to respondents. Moreover, the researchers chose purposive sampling because the researchers wanted to get the key informants of this study, for that reason; selecting the respondents is more useful for this study than the representativeness of the sample.

## **4. FINDINGS OF THE STUDY**

### **4.1. Profile of the Respondents**

The profile of the respondents was analyzed and the following tables present gender, age marital status and education

Gender	Frequency	Percent
Male	82	91.1
Female	8	8.9
Total	90	100

Source: Survey Data, 2016

The respondents were 82 (**91.1%**) male 8 (**8.9%**) female. this shows that majority of the respondents were male and they always engage in business activities of the mentioned regions of Somalia

Age	Frequency	Percent
20-39	86	95.6
40-59	4	4.4
Total	90	100

Source: Primary Data, 2016

Majority of the respondents 86 (**95.6%**) aged between 20-39. this indicates that most of the respondents were mid-aged.

#### 4.2. Marital Status

Marital Status	Frequency	Percent
Married	58	64.4
Single	32	35.6
Total	90	100

Source: Primary Data, 2016

Most of the respondents 58(**64.4%**) married whereas 32(**35.6%**) have not yet married. This figures out that majority of the respondents who contributed the study married.

#### 4.3. Level of Education

Education Level	Frequency	Percent
Secondary	7	7.8%
Bachelor	49	54.4%
Master	33	36.7%
PhD	1	1.1%
Total	90	100

Source: Primary Data, 2016

The information mentioned above proves that 7(**7.8%**) are secondary graduates. 49(**54.4%**) of the respondents are bachelors. 33(**36.7%**) of the study participants are master degree. 1(**1.1%**) is PhD holder. these are the respondents of the study respectively.

### 5. Descriptive analysis of Lack of Infrastructure

N0	Statement	Mean	Standard deviation
1	Lack of infrastructure promotes poor standard living in your region.	1.16	.364
2	Lack of infrastructure encourages economic deficit in your region.	1.12	.329
3	Lack of infrastructure brings productivity decline in your region.	1.22	.418
4	Lack of infrastructure is an obstacle to the free trade in your region.	1.17	.375
5	The road from your region to the other regions contributes the business improvement.	1.22	.418
6	Lack of infrastructure promotes unemployment in your region.	1.27	.445
7	The education in your region is as desired.	1.56	.500
8	Your region is well electrified.	1.56	.500
9	The health care in your region covers your needs up to some extent.	1.66	.478
10	The telecommunication in your region satisfies you.	1.56	.499
<b>Mean index</b>		<b>1.2</b>	<b>0.38</b>

The findings of the above table indicate that lack of infrastructure contributes poor standard living and also brings retardation of economic development. The mean scores (**1.2**) and this shows that majority of the study respondents agree lack of infrastructure creates unemployment and free trade barriers.

### 6. Discussion

The results indicate that lack of infrastructure (roads transport, bridges, education, electricity, healthcare, communication) contribute economic retardation. The findings also show that lack of infrastructure encourages unemployment. This study was supported by the findings of Starkey and Hine (2014) studied Poverty and sustainable transport as well as How transport affects poor people with policy implications for poverty reduction they found out that Lack of basic infrastructure (paths, trails, bridges and roads) and access to transport services makes it difficult for poor people to access markets and services.

According to Torsten Ehler (2014) investigated understanding the challenges for infrastructure finance, his study found the lack of well-performing infrastructure holds back economic development. But also in advanced economies, a lack of investment in well-designed transport, renewable energy, and social infrastructure is becoming more evident. Finally the study concluded its findings that lack of infrastructure holds back economic development.

### 7. Conclusion

The study aimed to explore lack of infrastructure; the impact on economic development. The findings of the study proved that lack of infrastructure holds back economic development raises unemployment and promotes poor standard living.

### 8. Recommendation

The study recommends that government should give more consideration to the rehabilitation of the infrastructure, assign substantial budget to rehabilitate the infrastructure in order the people live in distance places get an opportunity to develop their economy. The government should encourage private building companies to build roads and came up with rules and regulation to prevent default risk

### Reference

- Akinyosoye, M. (2010). INFRASTRUCTURE DEVELOPMENT IN NIGERIA. *ROAD MAP TO SUSTAINABLE DEVELOPMENT*
- Ali, I., & Pernia, E. M. (2003). *Infrastructure and Poverty Reduction— What is the Connection?*

- BELLO, A. A., & OSINUBI, T. S. (n.d). *INFRASTRUCTURE DEVELOPMENT AND ECONOMIC GROWTH IN SUB-SAHARAN AFRICA*.
- Catherin, D., .R, K. C., & Ranji, .. ( 2002). *RESEARCH methodology*. New Delhi.
- Hasselgren, B. (2012). *Government's role for transport infrastructure Doctoral Thesis*.
- KIM, B. (2006). *Infrastructure Development for the Economic Development in Developing Countries: Lessons from Korea and Japan*.
- Oraboune, S. (2008). *Infrastructure(Rural Road) Development and Poverty Alleviation i. n Lao PDR*.
- Pouliquen, L. (2000). *INFRASTRUCTURE AND POVERTY*.
- Programme, U. N. (2011). *Infrastructure for Economic Development and Poverty Reduction in Africa*.
- Report, W. T. (2004). *Infrastructure in trade and Economic development*.
- Starkey, P., & Hine, J. (2014). *How transport affects poor people with policy implications for poverty reduction*.