

## Public Investment Projects on Socio Economic Well-Being of Local Community: Empirical Evidence Water Supply Project in Balikumbat Sub - Division, North West Region, Cameroon

Mohtangongho David Njewoh<sup>1</sup>, Nashipu Thalut<sup>2</sup>

<sup>1</sup>Department of Business Administration, Pan African Institute for Development-West Africa Cameroon

<sup>2</sup>Department of Economics, The University of Bamenda, Cameroon

**ABSTRACT:** *This study examined the role of public investment projects (PIP) on socio-economic well-being of local community in Balikumbat Sub Division, North West Region of Cameroon. Data was elicited via survey questionnaire administered to 200 individual households that were sample using purposive sampling. The data were analyzed using Pearson Product-Moment Correlation. The result shows that education, health, and income as proxies of well-being have a strong significant positive relationship with the use of Golan and Kobla water supply scheme. The result indicates that the level of school completion ( $r = 0.45, P = 0.00$ ) and expected lifetime income return from education ( $r = .58, P = 0.00$ ) is positively and significantly associated with an increase in the use of Golan and Kobla water supply. Lastly, the result equally shows that a decrease in health expenditure is strongly and significantly associated with the use of Golan and Kobla water supply ( $r = .72, P = 0.00$ ). Based on these findings we recommend the government and the local councils should extend the Golan and Kobla water supply type-of-project to other areas since it tends to boost the socio-economic welfare.*

**KEYWORDS:** *Investment Projects, Pearson Product Moment Correlation, Socio-economic Well-being.*

### I. INTRODUCTION

The role of public investment in promoting the welfare of its citizens is still a subject of debate among academicians, politicians and non-profit organizations in developing countries. This is perhaps due to the prevailing high level of inequality and poverty among the developing countries. It was a result of the above claims that the United Nations (UN) Millennium Development Goals (MDGs) in 2005, re-emphasized the need for a 'big push' strategy in public investment, to help poor countries break out of their poverty trap and meet the MDG challenge. The report also argues that to enable all countries to achieve the MDGs, there should be the identification of priority public investments to empower poor people, and these should be built into MDG-based strategies that anchor the scaling-up of public investments, capacity-building, resource mobilization, and official development assistance. Seven main investment-and-policy clusters were identified in the areas of rural development; urban development; health systems; education; gender equality; environment and science, technology and innovation. Dramatic increases in external aid flow, to the tune of 0.54 per cent of rich countries' gross domestic product (GDP) by 2015, are seen as the inevitable source of the necessary finance, given the lack of domestic resources in many countries (Anderson et. al., 2006). This 'big push' strategy would harness growth opportunities for developing countries. Due to the importance of the 'big push' strategy especially in the aspect of enhancing wellbeing in terms of the provision of quality education, gender equality, clean water, and healthcare affordable as well as clean energy. Efficiency achievements of this policy would be in terms of decent work and economic growth, technological and innovation changes, infrastructure, reduced inequality, reduction in rural exodus. It is on the bases of these justifications that this seeks to investigate the role played by public investment projects (PIP) on the socio-economic well-being of the local community in Balikumbat Sub-Division North West Region of Cameroon.

## II. THEORETICAL REVIEW

### 1.1 System Theory

System theory, which was developed by Ludwig von Bertalanffy et al in 1950. It provides an analytical framework which can be used to describe some of the many factors involved in socio-economic development in our community. Some of the key concerns in community development such as accessing power and influence, understanding the dynamics of inter-group relationships, and considering the changes involved in planning development activities etc. A system is defined by von Bertalanffy (1968) as a set of elements standing in interaction. In other words, a group of things, which have something in common. These include any grouping with any sort of relationship - a collection of people, a forest, the planets, and rabbits on a hill-side, a pile of rocks, or anything else - if it is possible to identify a group of things, this cluster can be seen as a system. There can be smaller systems (sub-systems) within other, larger systems - a clear example of this would be a single household in a village. The activities inside that house would be seen as taking place within a system (the family group involved in that households), which in turn exists within the larger system of the village itself. The village can also be seen as a sub-system, one of several communities which together comprise an even greater system, the region or territory in which they all are located.

### 1.2 System boundary model

Each system is defined by some sort of boundary - a boundary can be thought of as an imaginary line which determines what is inside and what is outside of a system. In the example given above, there is a boundary around the small system of the single household, and there could be another boundary which includes the households in that part of the village. There could also be a boundary around the whole community or area in which these people live. System boundaries can be "drawn" wherever any observer wishes, and for any purpose. In a village, for example, it may be convenient to see the community as a cluster of different households or family groups. In this case, boundaries would be imagined which marked out these families. At other times, it may be convenient to show the different age groups in a community, in this case, another set of imaginary lines would be drawn which crossed those of the earlier "family-system" example, as all people within a particular age group would now be within one "age-system", regardless of the families to which they belonged.

### 1.3 Energy in System Theory

The various things which pass across the boundaries of systems can be called energy or influence. There are different forms of this influence. A human being requires physical energy in the form of food and water to survive. We also use other forms of influence which can be termed social power or psychological energy. This "energy," which is often in the form of information, is usually the main product of human relationships, and is a necessary element in the functioning of social systems. There are usually various kinds of social energy, and different people in a community hold varying amounts of these types of power. Some energy can help communities progress, while other forms can be unhelpful. Understanding how to help communities gain access to and control beneficial types of energy is one of the main aims of community work.

## III. EMPIRICAL REVIEW

Barro (1991) examined the impact of public investment on economic growth. The findings indicate that the average share of public investment in GDP had a positive, but statistically insignificant impact on economic growth over the period 1960–85. Easterly and Rebelo (1993), augment the model proposed by Barro in 1991 in two directions. First, they include investment by public enterprises as well as that by the central government. Secondly, they distinguished between public investments in different sectors. In contrast to the finding of Barro (1991), they found that public investment by the central government had a positive and statistically significant effect on economic growth. Moreover, it was revealed that different sectors; investment in transport and communications had a particularly large, and statistically significant effect on economic growth. Similar study by Devarajan et al. (1996) challenged this finding. They distinguished between different types of public expenditure, both by economic classification and by sector. The expenditure data were taken from the IMF Government Financial Statistics, which disaggregates expenditure according to;

economic classification (capital, current); functional classification (e.g. defence, administration, transport, health, education). Devarajan et al. (1996) data also expressed each expenditure category as a proportion of the total budget, rather than the absolute amount, thus taking into account the public budget constraint (each expenditure category can be increased only at the expense of others). In contrast with Easterly and Rebelo (1993), they found that public capital expenditure had a negative, and statistically significant, the effect on growth, as did public expenditure on transport and communication.

More recent studies of the effects of public expenditure on growth have included Aschauer (2000) and Milbourne et al. (2003). Both test the predictions of a neoclassical growth model in which public capital is a complement to private capital and find that public investment has a positive and statistically significant impact on economic growth. Of the different sectors, investments in transport and communication and education have the largest impacts on growth (the effects of investments in agriculture, health, housing and industry are not statistically significant). Despite the more optimistic results of these more recent studies, it is difficult to draw any firm conclusions from this evidence. Levine and Renelt (1992); reports that no measure of public expenditure, including public investment, can be said to have a robust effect on economic growth. Milbourne et al. (2003) argued that, when allowing for possible reverse causation, uncertainty about the size of their estimates increases substantially, especially those that relate to the effects of an investment in different sectors on economic growth.

Part of the difficulty is that, in all likelihood, the efficiency of public investment – in other words, the impact of investment spending on the size and quality of the public capital stock – varies substantially across countries (Pritchett, 2000). This obscures the underlying relationship between public capital and private sector productivity under observation. For this reason, some researchers have looked at the effect of direct measures of public capital and infrastructure on economic growth.

According to WHO (2000), the health of the community members is directly impacted by improved water and sanitation services. The WHO report (2004) identifies the main outcome of improved water and sanitation services is a reduction in the number of cases of diarrhoea and consequently a proportionate reduction in the number of deaths. Hygiene practices are also examined to verify the health impact associated with water and sanitation. A study by Curtis et al. (2000) showed that hand washing with soap and water after contact with faecal matter can reduce diarrhoea cases by 35% or more.

## IV. METHODOLOGY

### **1.4 Area of the Study**

Balikumbat is a village located in Balikumbat Sub Division, Ngoketunjia Division of the North West Region of Cameroon.

### **1.5 Research Design**

The research design adopted for this study was the survey research design. Field surveys are non-experimental designs that do not involve controlling for or manipulating independent variables or treatments. Field surveys capture snapshots of practices, beliefs, or situations from a random sample of subjects in field settings through a survey questionnaire. Through the questionnaire, administered data was collected.

### **1.6 Sampling Method**

The sample covers 200 households out of an estimated total population of 10163 in the Balikumbat as per the 2005 census (NWR strategic plan, 2013 estimates), found in about 1587 households. The sample size was estimated using the average Cameroonian household size of 6.4 people by UNCHS in 2012. Purposive sample technique was found appropriate, since it depends on the researcher knowledge of the sample composition.

### **1.7 Technique of Analysis**

Data collected for this study was analysed using both descriptive and inferential. The output using the descriptive statistic approach was presented using tables, bar charts. Inferential analysis was carried out using the Pearson’s product moment correlation. The interest of the correlation analysis was to test whether or not there exist a relationship between the use of Golan and Kobla water and the socio economic welfare of the people.

V. RESULTS

Table 1: Distribution of the respondents according to some selected demographic factors

Variable	Attribute	Frequency of Respondents
Gender	Male	24
	Female	176
Age	Less than 20 years	28
	20 - 40	44
	40 - 60	96
	60 and above	32
Marital Status	Married	182
	Unmarried	18
Education	No formal Education	14
	Primary Education	57
	Secondary Education	109
	Tertiary Education	20
Sample Size	200	

Source: Computed by the researcher, 2019

Table 1 shows that majority of the respondents were of gender female. Out of the 200 respondents in the study, 24 were male while 176 female. 28 were below the age of 20 years, 44 indicate that their age is between 20 to less than 40 years, 96 between 40 – 60 years, only 32 respondents was above 60 years. More than 50 percent of the respondents were married as well as having attended secondary education.

Table 2: Result of Correlation Test

		X1	X2	X3	X4	X5
X1	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	200				
X2	Pearson Correlation	.744**	1			
	Sig. (2-tailed)	.000				
	N	200	200			
X3	Pearson Correlation	.719**	.558**	1		
	Sig. (2-tailed)	.000	.000			
	N	200	200	200		
X4	Pearson Correlation	.639**	.508**	.447**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	200	200	200	200	
X5	Pearson Correlation	.155*	-.013	.120	.096	1
	Sig. (2-tailed)	.029	.851	.093	.178	
	N	197	197	197	197	197

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 \* . Correlation is significant at the 0.05 level (2-tailed).

Source: Computed by the researcher, 2019

Where the variables are:

X1 = Usage of Golan and Kobla water supply

X2 = Reduction in the number of water related illnesses such as diarrhea

X3 = Decreased health care expenditures

X4 = Improved hygienic conditions of food, body and environment

X5 = Increased food security through agriculture irrigation

The result of correlation analysis presented in table 2 reveals that there is a strong positive relationship between the use of the Golan and Kobla water supply and reduction in the number of water-related illnesses such as diarrhoea, the use of the Golan and Kobla water supply and decreased health care expenditures and the use of the Golan and Kobla water supply and improved hygienic conditions of food, body and environment while that of the use of Golan and Kobla water supply and increased food security through agricultural irrigation is also positive but weak. However, the relationships are all significant at 1% level of significance except for the case of increased food security through agricultural irrigation, which is significant at 5%. This implies that using the Golan and Kobla water supply positively and significantly lead to Reduction in the number of water-related illnesses such as diarrhoea, decreased health care expenditures, Improved hygienic conditions of food, body and environment and Increased food security through agricultural irrigation. Thus, we reject the first null hypothesis while retaining the alternative. This means that the use of Golan and Kobla water supply project scheme has a significant impact on the health status of beneficiaries.

## VI. CONCLUSION

Based on the findings of this study, it is concluded that the Golan and Kobla water supply has a positive impact on the measure of wellbeing on a fragment of the Balikumbat Sub Division people since they now have a safer, considerably faster and cheaper access to drinking water. This improvement in socio-economic wellbeing comes in terms of easy and quick access to clean drinking water which in terms of health reduces the number of water-related illnesses such as diarrhoea, water supply, decreased health care expenditures, improved hygienic conditions of food, body and environment and increased food security through agricultural irrigation.

## REFERENCES

- [1] Osmani, S. (2005) *Defining Pro-poor Growth*. One-pager 9. New York: UNDP, International Poverty Centre.
- [2] Paternostro, S., Rajaram, A. and Tiongson, E. R. (2005) *How Does the Composition of Public Barro, R. (1991) 'Economic Growth in a Cross-section of Countries', Quarterly Journal of Economics* 106 (2): 407–43.
- [3] Easterly, W. and Rebelo, S. (1993) 'Fiscal Policy and Economic Growth: An Empirical Investigation', *Journal of Monetary Economics* 32: 417–58.
- [4] Devarajan, S., Swaroop, V. and Zou, H. (1996) 'The Composition of Public Expenditure and Economic Growth', *Journal of Monetary Economics* 37: 313–44.
- [5] Aschauer, D. (2000) 'Public Capital and Economic Growth: Issues of Quantity, Finance and Efficiency', *Economic Development and Cultural Change* 48 (2): 391–406.
- [6] Milbourne, R., Otto, G. and Voss, G. (2003) 'Public Investment and Economic Growth', *Applied Economics* 35: 527–40.
- [7] Levine, R. and Renelt, D. (1992) 'A Sensitivity Analysis of Cross-country Growth Regressions', *American Economic Review* 82 (4): 942–63.
- [8] UN Millennium Project (2005) *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals*. London: Earthscan.
- [9] Pritchett, L. (2000) 'The Tyranny of Concepts: CUDIE (cumulated, depreciated, investment effort) is not Capital', *Journal of Economic Growth* 5: 361–84.
- [10] Jetten, J., Haslam, C., & Haslam, S.A., (2012) *The Social Cure: Identity, Health and Well-being*. East Sussex: Psychology Press