Evaluating the impact of Donor Funded Road Construction Projects in Kenya

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Abstract: Roads are the leading mode of transport in Kenya, accounting for about 85% of the total domestic transportation. Kenya Vision 2030, recognizes the improvement of infrastructure as one of its foundations to creating a globally competitive and prosperous country with high quality of life by 2030. To support the development objectives, Kenya embarked on a programme of upgrading roads, however this kind of investment projects are costly exceeding Kenya's budget capacity. Engaging donors has become necessary to meet the deficit. Nevertheless, there has been radical criticism of aid being termed as a double edged sword. Where the economic and political environment is right, it is helpful where not, has no positive effect and can set development back negatively both economically and politically. This article investigates the impact of aid in Kenya's road construction projects. A descriptive survey was used, the population being all road construction contractors in the Ministry of Transport and Infrastructure. Sampling secured a representative group. Data was collected using questionnaires. Findings disclosed that donor funded projects had a positive effect on the economy, preserved a reasonable balance between peoples’ economic aspirations and their sustainable development priorities, therefore appropriate policies should be initiated to foster good relations with donors.

Keywords - Donor Aid, Impact, Economic, Social, Environmental

I. INTRODUCTION

Infrastructure development globally plays a crucial role in determining the overall productivity and development of a country’s economy. Investments made on building international class infrastructure serve as major catalyst towards attracting local and foreign investors (Sharma and Vohra, 2009). According to (Ika, Diallo, and Thuillier, 2012) projects remain the tools of choice for policy makers in international development. However there are challenges associated with donor assistance which include; a country’s incapability to use donor funds effectively because of limited infrastructure, the unpredictability of donor assistance from year to year, and the complex monitoring and evaluation requirements that vary by donor (Management Sciences for Health, 2012). In acknowledgment of some of these challenges, donors and recipient countries have been collaborating to improve harmonization of funding requirements. Performance-based funding is another trend being used to improve the effectiveness of development aid.

Road transport is the leading mode of transport in Kenya, accounting for about 85% of the total domestic transportation. The Kenya Vision 2030, a long term planning blueprint launched in the year 2008 recognizes the improvement of infrastructure as one of its foundations to creating a globally competitive and prosperous country with high quality of life by the year 2030 (Kenya Rural Roads Authority, 2013). In order to support the country's development objectives, the country embarked on a programme of upgrading trunk roads to bitumen standard and improving rural roads to gravel standard. Given the road network size, traffic composition and projected future growth rates, the demand for road investment in Kenya is very high and exceeds the country’s budgetary financing capacity. Alternative source of financing has therefore become necessary in order to enable the country meet the challenge of the growing road traffic. A number of development partners are active in the Kenya's transport sector and offer support in the rehabilitation and reconstruction of some fundamental road links that are vital to the county's Economy. There is always an assumption that development aid should have positive effects on growth of a country when it is used properly. According to (Keiner, 2005) the question about the effectiveness of aid should perhaps be: "how best, if at all, can aid transfers be designed to finance and support growth-promoting activities in a country? (Gaturu and Muturi, 2014) notes that the completion of donor-funded projects in a timely manner is often a critical factor and a measure of project success but in many cases, delays plague the delivery of donor-funded projects in many developing countries where such projects are often implemented. He adds that, the period over which the impact of aid is measured matters. Aid for critical infrastructure is likely to have an immediate impact on incomes and growth, whereas the impact of aid for health and education is longer-term (Keiner, 2005). This paper aims assessing the impact of donor aid in Kenya.
II. LITERATURE REVIEW

Impact of Donor funded Projects

Evaluating the impact of development aid on economic growth has proven a difficult task. (Tott, 2013) notes that while aid has a positive impact on growth in developing countries with good fiscal, monetary and trade policies, it has little impact on countries where such policies are not followed. Aid itself has small and insignificant impact on growth but aid interacting with good policy has a positive impact on growth as suggested he adds. In (Assessment, Irandu, and Malii, 2013) view, the Thika Highway Improvement Project (THIP) is having major environmental, as well as social and economic impacts, like any other project of its kind. (Semenov and Barrow, 1997) says, the word environment refers to our surroundings. He expounds it as the context within which we exist. All things, living or non-living, exist surrounded by other things, and therefore all have an environment. For instance to humankind, the environment means, the biosphere i.e. on a broad scale. According to (Daigle, 2010), environmental effects of roads comprise of spatial and temporal dimensions and biotic and abiotic components. He opines that, the effects can be either local i.e. along a road segment or extensive i.e. related to a large road network. In addition to direct loss of habitat and ecosystems caused by the footprint of resource roads, another spatial aspect is the “road-effect zone”3 that can radiate out from the sides of the road and/or extend downstream where effects on aquatic conditions may be located a distance from the source. The road-effect zone also changes light conditions and disturbs soils and thus creates conditions suitable for invasive plants. He accentuates that spatial effects of roads vary because species habitat requirements and ecosystem characteristics are diverse. He gives an example of the less mobile wildlife species who tend to have smaller habitats whereas wide-ranging mammal and bird requirements tend to be spread across macro-environments.

(Tram Warrington and Law, 2011) disclose that dust, has one of the effects to the humankind surrounding, has the potential to be generated during construction activities. This happens as a result of clearing, disturbance of soils, and movement of machinery and wind effects on dry soil especially during the dry season. (Tram Warrington and Law, 2011), also adds that particulates in the local air shed may also increase marginally as a result of construction machinery operating on site and traffic delays during construction. Dust is likely to arise during construction activities as a result of clearing, disturbance of soils, movement of machinery and wind effects on dry soil. Particulates from exhaust fumes may also increase marginally as a result of construction machinery operating on site and traffic delays during construction. According to (Burningham, 1996), National Environmental Policy Act (NEPA) which was established in 1969 requires that Environmental Impact Statements (EIS) be prepared for any government projects which significantly affect the quality of the human environment. He stipulates that the preparation of an Environmental Impact Assessment (ETA) should be an interdisciplinary process including contributions from social scientists as well as from natural scientists and engineers. A report by the UNEP 2009 on Thika Road Super Highway shows a baseline of what was happening before the road was constructed. They gave a brief view of the problems that faced the commuters, residents and business owners along Thika Road. These included heavy congestion, dilapidated infrastructure, poor air quality, and high accident and fatality rates. According to a report by (KARA, 2012), the average urban growth rate for Nairobi is approximately 4%. They add that the comparable rate for the satellite towns like Ruiru has been estimated as even higher. The rapid urbanization coupled with inadequate transportation infrastructure, maintenance and transport policies have led to a significant gap in meeting the travel needs of public transit users, pedestrians, and cyclists. High rates of traffic and travel demand, both motorized and non-motorized, paired with poor road conditions, have all but strangled mobility and urban access and reduced safety in the metropolitan area and this has resulted to high rates of road accidents that mostly involve the pedestrians. The beneficial impacts (Wanjiku, 2014) can include: a better standard of living due to increased access to employment, business opportunities, training and education, greater access to and from a community and increased funding to improve programs.

(Weisbrod and Weisbrod, 1997) define economic impacts as the effects on the level of economic activity in a given area. They may be viewed as: business output, value added, wealth (including property values), personal income or jobs. The effect on any of these measures can be an indicator of improvement in the economic well-being of area residents, which is usually the major goal of economic development efforts. In (Batkin, 2001) opinion, in many projects, the main objective is poverty reduction through improving economic and social infrastructure by ensuring drinking water supplies, irrigation, the condition of schools and clinics, access roads, etc. are in good order. While the local poor are engaged to provide unskilled manual labor, the emphasis is on the selection of essential social and economic infrastructure, the quality and efficiency of works, and future. Literature on impacts of foreign aid on savings and growth in developing countries, besides having made a good case for increased flow of foreign aid, raise questions on the utilization of these funds on their designated projects (Cheboi, 2014). The donor community has become increasingly concerned that part of the development assistance intended for crucial projects finance projects other than those earmarked for funding. For example, a study by Uganda Debt Relief Network (2000) revealed that only 35% of the external funds
reaches the designated targets, underscoring the notion that aid to developing countries is fungible. Whereas the question of fungibility is important, empirical analysis of the linkage between aid and total expenditure is necessary when assessing the impact of aid in developing countries.

III. RESEARCH METHODOLOGY

The research design was descriptive survey. It involved describing the characteristics of a particular individual or of a group of variables (Kothari, 2008). The population of this study was all the road construction contractors in the Ministry of Transport & Infrastructure, Kenya. Sampling was used to secure a representative group which enabled the researcher to gain information about the population according to (Mugenda, 2003). To obtain at least 10% of the project managers, the sample size was distributed as 5 managers and 326 contractors. Data was collected mainly by use of questionnaire method that contained both open ended and closed questions. The researcher obtained an introduction letter from the university and a research permit from the bodies and Ministry officials identified. Content validity tested whether all the important aspects of the constructions are measured. This was done by first testing the instruments on 10% of the sample and reviewing the findings. Reliability of the responses was tested using the Cronbach alpha. Normally, α should be between 0.7 – 0.9(Santos, 1999). The data collected from the field was captured using Statistical Package for Social Sciences (SPSS) version 21 and Microsoft Excel (2013). Descriptive statistics was used to define the data collected while, inferential statistics mainly involved the testing of correlation among the various variables. For nominal data Pearson’s Chi Square statistics together with correlation coefficient computed.

IV. FINDINGS

Economic Impact

The study sought to understand the possible economic impacts of the donor funded construction projects. Several statements were fronted to the respondents, the results were measured by a Likert scale from 1 to 5, with one being the least alternative and 5 the highest alternative. From the findings the relationship between donor aid and economic growth generated mixed results. 74.2% of the respondents said the donor funded projects had a positive effect on economic growth in Kenya. This is supported by (Ekanayake and Chatrna, 2010). In their model on the impact of aid in developing countries they estimated its effect on different regions. On one hand, foreign aid appeared to have an adverse effect on economic growth in developing countries, on the other hand however, it’s helpful for Africa, possibly because it is the largest beneficiary of foreign aid than any other region in the world. (Akotia, 2014) concurs with the findings and points out that the donor funded projects preserved a reasonable balance between peoples’ economic aspirations and their sustainable development priorities and they promote employment and investment prospects, together with transfer of skills which is a crucial social benefit as regeneration projects are meant to deliver. Moreover, to achieve sustainability in economic growth societies and individuals have to be empowered economically. Principally, projects should seek to improve the economic productivity ventures because issues dealing with economic sustainability have far reaching implications on individuals and the general economic survival. Further findings from the same revealed about 8.6% of respondents thought donor aid had insignificant effect on economic growth. (Furjelová, 2010) supports the findings saying that there is little evidence of a robust positive correlation between aid and growth because the aid is marred by issues of corruption, poor planning and management.

Environmental Impact

There are diverse concerns expressed about the environmental effects of road construction projects. The respondents were asked questions about their perceptions on the implementation of road development projects and the resulting environmental impacts.

<table>
<thead>
<tr>
<th>Statement</th>
<th>S</th>
<th>D</th>
<th>I</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There were measures taken to encounter drainage issues that could arise</td>
<td>3</td>
<td>21</td>
<td>106</td>
<td>89</td>
<td>72</td>
<td>291</td>
<td>3.71</td>
<td>0.954</td>
</tr>
<tr>
<td>Removal of vegetation along the route had an effect on the surrounding environment</td>
<td>2</td>
<td>20</td>
<td>95</td>
<td>97</td>
<td>80</td>
<td>294</td>
<td>3.79</td>
<td>0.943</td>
</tr>
<tr>
<td>The wastes were taken care of according to the set environmental standards</td>
<td>-</td>
<td>24</td>
<td>93</td>
<td>107</td>
<td>71</td>
<td>295</td>
<td>3.76</td>
<td>0.910</td>
</tr>
<tr>
<td>Overall</td>
<td>5</td>
<td>65</td>
<td>294</td>
<td>293</td>
<td>223</td>
<td>880</td>
<td>3.75</td>
<td>2.200</td>
</tr>
</tbody>
</table>

DOI: 10.9790/0837-2110126165  www.iosrjournals.org  63 | Page
At a glance, the data from the above table indicate that perceptions of the physical environmental problems were handled well by the agency in charge. It can therefore be concluded that the agencies behind the donor funded projects are cautious about environmental issues while designing and carrying out the implementation. According to literature put forth by (Montgomery, Schirmer Jr, and Hirsch, 2015) large construction projects can have substantial effects on the environment and local communities and thus proper mitigation measures be incorporated in the design and carefully implement of projects and programs. However, as one of the respondents suggested, consultation is significant because it enables road projects stakeholders to identify potential impacts as well as to highlight community anxieties about the effects of the construction on the life and well-being of the people and to encourage participation in the development of workable solutions.

Social Impact
There was need to identify desirable social effects of development initiative, the table below shows the responses

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>I</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction of roads improve security</td>
<td>1</td>
<td>23</td>
<td>91</td>
<td>84</td>
<td>93</td>
<td>292</td>
<td>3.84</td>
<td>0.976</td>
</tr>
<tr>
<td>The community did not raise any social, political or cultural issues against the construction of the project.</td>
<td>1</td>
<td>19</td>
<td>101</td>
<td>100</td>
<td>76</td>
<td>297</td>
<td>3.78</td>
<td>0.914</td>
</tr>
<tr>
<td>Proper medical facilities were available for people working on the project</td>
<td>24</td>
<td>107</td>
<td>87</td>
<td>71</td>
<td>289</td>
<td>3.71</td>
<td>0.931</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>2</td>
<td>66</td>
<td>299</td>
<td>271</td>
<td>240</td>
<td>878</td>
<td>3.777</td>
<td>0.940</td>
</tr>
</tbody>
</table>

On the overall the mean response rating for social impact of donor funded projects was found to be 3.777 interpreted to 75.4%. It is very likely that road construction opens up areas that were impassable before and that transport services have expanded. With increase in traffic there is outright decline in insecurity along the roads.

Economic and Social Impact of Donor Funded Road Projects

<table>
<thead>
<tr>
<th>Impact?</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor funded projects have economic and social impact?</td>
<td>Yes</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>29</td>
</tr>
</tbody>
</table>

78.6% of the respondents agreed that donor funded road construction projects had positive economic and social impact. The information is displayed in table above. (Akotia, 2014) says the promotion of employment and investment prospects, together with the heightening of skills are deliberated as crucial benefits that projects are meant to deliver. Consequently such added value enables communities to respond favorably to economic transformation and effectively tackle issues of deprivation. The beneficial impacts (Wanjiku, 2014) can include: a better standard of living due to increased access to employment, business opportunities, training and education, greater access to and from a community and increased funding to improve programs.

V. CONCLUSION

The objective of the study sought to establish the impact of donor funded road construction projects in communities in the receiving countries. The findings revealed that donor-funded projects have elevated the standard of living of communities in many developing countries. They preserve a reasonable balance between peoples’ economic aspirations and their sustainable development priorities. In this study which is based in Kenya donor funded projects have promoted employment and investment opportunities together with knowledge/skills transfer which are crucial benefits to the communities as regeneration projects are meant to deliver. A cross-tabulation was carried out to get the feel of the different players in donor funded projects and their effect on macro-economic conditions. Foreign Aid has significant impact on economic growth of the recipient countries. They bring added values that enables communities to respond favorably to economic
transformation and effectively tackle issues of deprivation. It is therefore important for appropriate policies to be put in place to foster good relations with donors. Designs must also be adequate with all the details required for implementations. Implementing agencies should work closely with the leadership of local communities for project success.

VI. ACKNOWLEDGEMENTS
I would like to express my deepest appreciation to all those who gave me support in one way or another to have this article completed. My special gratitude goes to my supervisors Prof. Henry Bwisa and Dr. Mike Iravo whose contributions, guidance and encouragement gave me the commitment and strength to come up with this article.

REFERENCES