AGENCY LEVEL MANAGEMENT OF ROADS MAINTENANCE LEVY FUND: EVIDENCE FROM KENYA

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ABSTRACT

The Road Maintenance Levy Fund came into existence in 1993 through an Act of Parliament, to facilitate the maintenance of public roads. The Kenya Roads Board administers the Fund and works in collaboration with various implementing agencies. However, anecdotal information suggests that the management of the fund at the agency level is constrained by various challenges, which no systematic academic investigation had ever documented. This study sought to identify key challenges experienced by road agencies to justify reforms towards better management and utilization of the Fund. We applied the cross-sectional survey design to source information from 146 key informants. The study found that political interference (71.9%), procurement malpractices (67.1%), funding inconsistency (64.4%), understaffing (54.1%), inconsistent communication (28.8%) and delay in auditing (40.4%) were the key challenges affecting operations of road agencies. Initiating appropriate institutional and procedural reforms targeting the Board and road agencies is likely to address the issues. The study recommends the need for new clearer rules, regulations and procedures to curb political interference, linkage between road agencies and enforcement agencies for the procurement law, electronic transfer of funds directly to agency accounts, human resource needs assessment to justify recruitment and rationalization.

JEL: O16

KEYWORDS: Road Maintenance Levy Fund, Kenya Roads Board, Road Agency, Political Interference, Procurement Malpractices, Funding Inconsistency

INTRODUCTION

Kenya's *Vision 2030* is the national development blueprint, initiated by the Government of Kenya (GoK) to guide development activities with a view to transforming the country into a newly industrializing and globally competitive middle-income economy by the year 2030. The *Vision* anchors on three pillars of economic, social and political development. The economic pillar aims at improving the living standards for all Kenyans through an economic development program. In this regard, the country should achieve an average gross Domestic Product Growth (GDP) rate of at least 10% per annum during the next seventeen years, to build a just and cohesive society with equitable social development as well as a clean secure environment (GoK, 2007; 2012).

The economic pillar identifies six key sectors that have the highest potential for economic growth, including tourism, agriculture, manufacturing, wholesale and retail trade, business process off-shoring and financial services. Infrastructural development stands out as the main bridge for full exploitation of the growth potential from these sectors (GoK, 2007). The road network is a key element of infrastructural development, representing a significant portion of the Government's investments in fixed assets.

Road transport is the most widely used means of transportation for people and freight in the Sub-Saharan Africa (SSA). In Kenya, road transport accounts for over 80% of land freight and passenger traffic

(Kenya Institute of Public Policy Research and Analysis [KIPPRA], 2001; World Bank, 2011; GoK, 2012). Its importance stems from the fragmentary nature of the railway system and the limitations of inland water transport (KIPPRA, 2001). Although Kenya's road network covers about 160,886 kilometres, only about 11,197 kilometres (7%) is paved (World Bank, 2011). According to a World Bank report, Kenya's stock of road infrastructure, measured by the ratio of paved roads to total roads, falls below that of regional competitors such as Rwanda and Uganda, with much lower GDP per capita. In addition, South Africa has more than double, while Egypt has ten times more paved road density than Kenya (World Bank, 2011).

Road construction is a capital-intensive investment; therefore, initiating a proper maintenance back-up plan is not only logical but also important in the economic sense. Prior to the 1990s, SSA countries prioritized road construction, but did not accord as much value in the establishment of maintenance programs (KIPPRA, 2001). As a result, paved roads degenerated at a faster rate than resources available to support the maintenance budget (World Bank, 2011). In the same vein, Brushett (2005) notes many SSA countries have not been able to meet the recurrent road maintenance costs from budgetary resources, let alone the construction of new roads to accommodate bulging traffic and serve the expanding national and regional markets.

The scarcity of routine maintenance has left over 50% of paved roads and 80% of unpaved roads in the SSA in poor condition. As for rural feeder roads, the picture may be gloomier with up to 85% of such roads estimated to be in poor condition and in most cases, only passable during dry seasons (Brushett, 2005). The poor state of rural feeder roads connecting agricultural zones and market centres is a critical gap that may undermine the realization of economic growth as envisioned in national development blueprints such as Kenya's *Vision 2030* (World Bank, 2011).

Regular road maintenance is vital for users' comfort, safety and national economic growth. Un-maintained roads increase vehicle operating costs and overall transportation costs, which in turn, affect all sectors of the economy, much to the disadvantage of low income-earners. Bad roads also portend a high risk of accidents, resulting to loss of livelihoods and human capital (Heggie, 1994; KIPPRA, 2001). Being a capital-intensive undertaking, road network is the single most expensive asset in the SSA countries. By 2007, multilateral development agencies estimated the asset value of the road network in SSA at about US$ 300 billion. This is a huge asset by any standards and requires adequate routine maintenance to sustain its stability for long-term service, as a catalyst for socio-economic development (KIPPRA, 2001).

The search for a sustainable mechanism for road maintenance, particularly in developing countries, started back in the 1970s and 1980s. In Africa, the notion of a "road fund" was pilot-tested in countries such as Burundi, Senegal and Gabon, following the success of similar projects in Europe and Asia (Brushett, 2005). However, due to legal and institutional capacity challenges such as poor financial management, absence of independent audits, extensive use of funds for unauthorized expenditures and weak oversight, the "first generation" road fund initiatives were largely unsuccessful. As part of solution, a reforms process championed by leading development agencies in the early 1990s paved the way for "second generation" road fund initiatives, set by specific legislative and institutional frameworks, to assure proper management of the funds and accountability to stakeholders (Benmaamar, 2006).

The second-generation road fund mechanisms sprouted in many developing countries between 1990 and 1999 (Heggie, 1995; Zietlow & Bull, 2002; Kumar, 2002; Brushett, 2005). In Kenya, the Road Maintenance Levy Fund (RMLF) came into existence in 1993 through an Act of Parliament, to facilitate the maintenance of public roads. The Kenya Roads Board (KRB) administers the Fund, which replenishes from fuel taxes and transit toll collections, a state agency mandated to oversee and coordinate the development and maintenance of public roads in the country (Nyangaga, 2007; GoK, 2012).

The legislation designates road agencies to support the management and utilization of road funds. The mandate of road agencies includes programming, procurement and management of contracts and funds for settling contractor's bills. Road agencies deal directly with contractors and suppliers; in this regard, they prioritize, manage and account for the utilization of road funds at the community level (Benmaamar, 2006).

In Kenya, section 18 (parts 1-4) of the Kenya Roads Board Act, 1999 designates specific road agencies, with which KRB works to carry out the actual maintenance of roads, as provided for under (Nyangaga, 2007; GoK, 2012). At the time of the study, designated road agencies included the Roads Department at the Ministry of Roads and Public Works (MoRPW), District Roads Committees (DRCs), Kenya Wildlife Service (KWS) and local government authorities across the country (GoK, 2006; KACC, 2007).

The success of a road fund initiative largely depends on the effectiveness of road agencies. However, previous studies show that the effectiveness of road agencies, particularly with a decentralized system, is constrained by issues such as political interference, lack of proper financial management systems, delay in funding, financial indiscipline, lack of sound procurement systems and procedures, as well as collusion between agency staff and contractors to approve poor workmanship, among others (Heggie, 1995; Kumar, 2002; Benmaamar, 2006; Bengtsson, Duvall, Magid & Palter, 2011).

In Kenya, there is a dearth of systematic and comprehensive literature regarding the challenges experienced by road agencies in managing and accounting for road funds. However, available anecdotal information suggests that the effectiveness of road agencies is constrained by various challenges, which no systematic academic process had ever documented. Consequently, the purpose of this study was to identify and document key issues that may justify reforms to improve the fund's management, utilization, accountability and sustainability. The study covered Kisumu, Siaya, Nyando, Kisii and Migori Districts of Nyanza province, Kenya. The remainder of this paper covers sections on literature review, data and methodology used in the study, results and discussions as well as conclusions.

LITERATURE REVIEW

Road transport is essential for socio-economic development world over, as it provides necessary links between production and market centres; making it valuable to the agricultural, mining and industrial sectors. Road transport also facilitates access to work places, as well as educational, health, recreational and social facilities (Heggie, 1995; Brushett, 2005). The quality of the road network determines the affordability of transportation costs, prices of basic commodities and the quality of life, especially for low income-earners. In this regard, an efficient transport system minimizes transportation costs, thereby supporting economic growth by promoting production and trade. Therefore, the development and maintenance of appropriate road network remains a fundamental recipe for economic growth and poverty reduction in the SSA (Heggie, 1994; 1995; Brushett, 2005).

Road construction is a capital-intensive undertaking, which most developing countries cannot handle without external funding support. Although the road sub-sector competes for budgetary resources against other more visible sectors such as health and education, the competition has not improved funding, as most countries accord priority to the development of human capital (KIPPRA, 2001).

Pressed by budgetary constraints, developing countries responded to the situation by earmarking selected road use taxes and establishing special off-budget accounts to support road maintenance (Benmaamar, 2006). Development partners supported the trial of this approach in a number of SSA countries, including Burundi, Senegal and Gabon, following success of various European and Asian countries. Brushett (2005) points out that these funds were not entities as such, but national budget line items managed by sectoral ministries to support road maintenance.

Though considered important first steps towards a sustainable mechanism for financing road maintenance, Benmaamar (2006) notes that the initiative yielded mixed results, with most countries involved in the pilot test performing below expectation. Challenges arising from the initiative included poor financial management, absence of independent audits, extensive use of funds for unauthorized expenditures, diversion of funds and weak oversight. Benmaamar (2006) calls the initiative the "first generation" road fund. To address the weaknesses of the first generation road fund initiative, the Sub-Saharan Africa Transport Policy Program (SSATP), a World Bank supported program, spearheaded reforms towards the end of 1980s, to enhance management efficiency of the road fund (Brushett, 2005).

In the 1990s, development partners promoted the idea of a sustainable road fund extensively, this time as part of a comprehensive approach to road sector reforms. Under the new initiative, developing countries were required to adopt a business approach to manage and maintain public roads, with road users playing a stronger role than hitherto in road maintenance (Brushett, 2005). In this regard, users were required to pay on a fee-for-service basis for the use of roads. The baseline premise was that road users are likely to pay charges of reasonable amount if assured that proceeds thereof would be used to improve the condition of roads, thereby, reduce vehicle maintenance costs (Brushett, 2005; Benmaamar, 2006).

The new initiative culminated to the birth of the so-called "second generation'' road fund, particularly in the 1990s. For instance, the Ghana Road Fund came into existence in 1996, with a purpose of financing routine maintenance and rehabilitation of public roads (Bahl, 1992). In Honduras, the Road Maintenance Fund came into existence in 1993, while Costa Rica did so in 1998. In Armenia, the Roads Fund Legislation was passed in 1998, in Tanzania, the Road Fund was initiated in 1992, to finance the maintenance of urban and district roads; while in Kenya, the Road Maintenance Levy Fund (RMLF) was established in 1993 (Zietlow & Bull, 2002; Kumar, 2002; Central Bank of Nigeria, 2003; Heggie, 1995).

The distinctive feature of the second-generation road fund initiatives included specific legislative and institutional frameworks for proper management of road funds and accountability. The founding legislative frameworks outline the roles and responsibilities of a management board to oversee operations and a secretariat to manage the road fund business on a day-to-day basis (Benmaamar, 2006).

As noted by Heggie and Vickers (1998), the second-generation road fund became a landmark feature of sectoral reforms and strategies for improving road maintenance in more than half of the SSA countries. The initiatives exhibit the following attributes: sound legal basis, separation of roles between the board and service providers; strong oversight and executive authority, sound financial management systems, lean and efficient administrative structure as well as regular technical and financial audits (Heggie & Vickers, 1998; Benmaamar, 2006).

To facilitate operations of the management boards, founding legislative frameworks designate separate road agencies to deal directly with contractors and suppliers as well as manage the utilization of road funds at the community level (Benmaamar, 2006). More specifically, road agencies are responsible for programming, procurement and management of road maintenance contracts and road funds for the payment of contractor's bills. In view of this, many SSA countries are increasingly reviewing their road fund institutional structures to divorce the implementation, utilization and accountability roles from the financing and oversight duties of the boards.

In Kenya, the management board, KRB works in collaboration with various agencies and sub-agencies to carry out the actual maintenance of roads. At the time of the study, the Department of Roads was dealing with international and national highways as well as trunk roads (Classes A, B and C, respectively), DRCs was handling rural access and feeder roads (Classes D and E), while KWS was focusing on the construction and maintenance of the roads in national parks and game reserves (GoK, 2006; KACC, 2007; Nyangaga, 2007; GoK, 2012).

As noted by Brushett (2005), the success of road fund initiatives manifests through indicators such as good quality roads, standard workmanship, sound procurement procedures, minimal maintenance backlog, a high level of transparency and accountability, as well as increased community participation, among others. The effectiveness of road agencies is perhaps the most crucial parameter in the success of road fund initiatives.

Various studies such as those done by Heggie (1995), Kumar (2002) and Benmaamar (2006) have indicated that various factors constrain the effectiveness of road agencies within a decentralized system of road management. Benmaamar (2006) singles out political interests as the key factor derailing procurement procedures, leading to poor workmanship and loss of public resources.

The political interference at the agency level has also constrained the participation of community members (Kumar, 2002). As noted by Bengtsson *et al.* (2011), lack of sound financial management systems affects the accuracy of agency returns, in some cases leading to time and budgetary overruns. Lack of proper analytical systems for prioritization creates room for political interests to guide the choice of roads to maintain, which in most cases may be of low economic value to communities.

DATA AND METHODOLOGY

We applied the cross-sectional survey design, with both quantitative and qualitative approaches to source, process and analyze the requisite information. The study targeted key informants, which included staff at MoRPW, DRC members, contractors, suppliers, consultants and local authority staff. Inclusion in the sample depended on voluntary participation. We successfully interviewed all the 146 key informants, which we contacted. We collected primary data in May 2009 and the process involved identification of eligible participants, consenting and interviewing. We applied purposive sampling to select participants based on their incumbency at the time of the study. Identification and appointments with the targeted groups was facilitated was District Roads Engineers and District Public Works Officers.

We also applied a key informant interview guide with structured and semi-structured questions to source the data. In social sciences, the intensity of a social problem within an institutional setting is determinable through the perception of staff members. Frequent encounter with such problems inform and shape staff perceptions. In view of this, we gauged the seriousness of the challenges experienced by road agencies by requesting participants to rate their perceptions on a three-point scale of ‘not serious’, ‘serious’ or ‘very serious’. The intention was to source information that would facilitate prioritization of the challenges and justify the need for mitigative interventions.

Furthermore, we employed quantitative and qualitative techniques to process and analyze the data. In this regard, quantitative analysis that we obtained frequency distributions with percentages and cross-tabulation with Chi-square tests, we also transcribed, clustered into nodes and explored qualitative data for patterns and meaning to the flow of the funds. Detailed description of the design and approaches that we used in this study are available in following publications (Nachmias & Nachmias, 1996; Bryman & Cramer 1997; American Statistical Association, 1999; Owens, 2002; Rindfleisch, Malter, Ganesan & Moorman, 2008).

RESULTS AND DISCUSSIONS

The study covered 146 key informants, including 29 (19.9%) staff of the Ministry of Roads and Public Works (MoRPW), 6 (4.1%) engineer consultants, 22 (15.1%) members of District Roads Committees (DRCs), 10 (6.8%) contractors, 16 (11.0%) suppliers and 63 (43.2%) staff of local authorities. Political interference, procurement malpractices, funding inconsistency, understaffing, inconsistent communication and delay in auditing were the challenges affecting operations of road agencies. We have presented and discussed details in the subsequent paragraphs.

Table 1 shows that 105 (71.9%) out of 146 participants said political interference was a key challenge affecting road agencies. The challenge manifested itself through diversion of funds to non-prioritized roads with the aim of rewarding specific communities perceived to be politically loyal; as well as influence of the procurement process to favour political loyalists, business associates or family members. In some cases, political leaders harassed, intimidated, assaulted and even manipulated the system to have Government officers standing on their way transferred to other stations. Based on this, out of the 105 participants, 24 (22.9%) described political interference as a serious challenge, while 79 (75.2%) felt it was very serious.

Table1: Challenges Experienced by Road Maintenance Agencies

Challenge	Perceptions	Frequency	Percent
Political interference	Yes	105	71.9
	No	41	28.1
	Total	**146**	**100.0**
	Not serious	2	1.9
	Serious	24	22.9
	Very serious	79	75.2
	Total	**105**	**100.0**
Procurement malpractices	Yes	98	67.1
	No	48	32.9
	Total	**146**	**100.0**
	Not serious	7	7.1
	Serious	60	61.2
	Very serious	31	31.6
	Total	**98**	**99.9**
Funding inconsistency	Yes	94	64.4
	No	52	35.6
	Total	**146**	**100.0**
	Not serious	6	6.4
	Serious	29	30.9
	Very serious	59	62.8
	Total	**94**	**100.1**
Understaffing	Yes	79	54.1
	No	67	45.9
	Total	**146**	**100.0**
	Not serious	10	12.7
	Serious	43	54.4
	Very serious	26	32.9
	Total	**79**	**100.0**
Irregular communication from Kenya Roads Board	Yes	42	28.8
	No	104	71.2
	Total	**146**	**100.0**
	Not serious	8	19.0
	Serious	23	54.8
	Very serious	11	26.2
	Total	**42**	**100.0**
Delays in auditing	Yes	59	40.4
	No	87	59.6
	Total	**146**	**100.0**
	Not serious	5	8.5
	Serious	33	55.9
	Very serious	21	35.6
	Total	**59**	**100.0**

This Table presents information on the types of challenges affecting the operations of road agencies. The Table shows that political interference (71.9%), procurement malpractices (67.1%) and funding inconsistency (64.4%) were the three top challenges experienced by road maintenance agencies. The figure also shows participants' perception regarding the seriousness of each challenge, based on their experiences with the system.

Under such circumstances, agency staff found it extremely difficult to fulfil the interests and expectations of political leaders without breaching formal operational procedures or overrunning their budgets, resulting to low motivation and lack of enthusiasm. Again, the transfer of key staff such as engineers affected project continuity, as new comers took some time to grasp institutional dynamics.

Table 1 also shows that 98 (67.1%) participants mentioned procurement malpractices, which included issues such as conflict of interest, where some tender committee members acted in favor of particular candidates, tendering documents designed in favor of particular bidders, emergency procurement, single-sourcing of providers, as well as some politically-connected bidders colluding with tender committee officials to overprice materials and works. In this regard, up to 60 (61.2%) participants felt that procurement malpractices was a serious challenge, while 31 (31.6%) were of the view that the challenge was very serious.

Table 1 further shows that 94 (64.4%) participants identified funding inconsistency as one of the challenges constraining the operations of road agencies. Participants attributed the inconsistent flow of funds to various factors, among them being a lengthy disbursement channel and lack of a proper tracking system. In this regard, participants pointed out that KRB disburses funds to the districts through cheques upon receiving revenue collections from Kenya Revenue Authority (KRA).

The district treasury, which coordinates all public funds at the district level, receives disbursements and issues new cheques to various agencies as per the Authority to Incur Expenditure (AIE) from the chief finance officer, MoRPW headquarters. Sometimes disbursements stagnated at the district treasury, while awaiting AIEs from the Ministry headquarters. In view of this, 29 (30.9%) described the challenge as serious, while the majority, 59 (62.8%) rated it as very serious.

Furthermore, some agencies did not receive their disbursements in time due to lack of follow-up communication from KRB headquarters. Quite often, agencies were not aware of disbursement schedule at KRB headquarters. Without follow-up communication, funds stagnated at the district treasury for longer than necessary, even when AIEs came in time. Other factors causing inconsistent flow of funds included delay in auditing, weak financial management system and delay in the requisition and remittance of AIEs.

Again, Table 1 indicates that 79 (54.1%) participants identified understaffing as one of the challenges resulting from delayed replacement of officers leaving through transfers, as well as those absent due to prolonged illness or natural attrition. Particularly missing were special skills such road construction engineers and technicians, accountants, auditors and administrative staff. For this reason, available staff coped with the resultant heavy workload through multi-tasking, sometimes performing tasks for which they had no training. In some districts, the public works officers doubled as roads officers, in addition to administrative, bookkeeping and procurement activities. In one agency, an office cleaner was also performing the roles of an accounts clerk, albeit without any formal training. Consequently, 43 (54.4%) participants felt that understaffing was a serious challenge, while 26 (32.9%) described the challenge as very serious.

The findings presented in Table 1 further show that 42 (28.8%) participants identified inconsistent communication between KRB and road agencies as one of the challenges affecting activities of the latter. Participants indicated that most agencies were often not aware of disbursement schedules at KRB headquarters, leading to funds overstaying at the district treasury. In this regard, they cited cases where some agency staff colluded with treasury officials to siphon out stagnating funds. Due to communication inconsistency, some agencies received their disbursements towards the end of fiscal periods or towards wet seasons, when they could do very little work. Based on this, 23 (54.8%) participants opined that the challenge was serious, while 11 (26.2%) described it as very serious.

The results in Table 1 further show that 59 (40.4%) participants identified delay in external auditing as among the challenges constraining operational efficiency and consistency among road agencies. Participants hinted that some districts did not have resident auditors and each year, the government mobilized auditors from other stations to evaluate the financial accounts of road agencies. In some instances, the agencies could wait for up to four months for auditing services in order to qualify for subsequent funding. The timeliness of external auditing remains crucial for the redress of issues arising, continuation of funding and staff motivation. Consequently, 33 (55.9%) participants indicated that delay in external auditing was a serious challenge, while 21 (35.6%) described it as a very serious challenge.

Across the districts, Table 2 shows that the seriousness of political interference was nearly universal, with most participants stating that the challenge was very serious. Among those saying that political interference was serious, 8 (33.3%) were in Nyando, 7 (29.2%) in Kisii and 5 (20.8%) in Kisumu. Those indicating that the challenge was very serious included 22 (27.8%) participants in Siaya, 18 (22.8%) in Migori and 16 (20.3%) in Kisumu Districts. The cross tabulation analysis obtained a computed χ^2 value of 3.056, with 8 degrees of freedom and a p-value of 0.121, which was not significant. This suggests that the districts were not significantly different regarding perceptions on the seriousness of political interference.

Table 2: Perceived Seriousness of the Challenges across the Districts

Challenges	Not serious		Serious		Very serious	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Political interference						
Migori	0	0.0	2	8.3	18	22.8
Kisumu	1	50.0	5	20.8	16	20.3
Nyando	0	0.0	8	33.3	13	16.5
Siaya	0	0.0	2	8.3	22	27.8
Kisii	1	50.0	7	29.2	10	12.7
Total	**2**	**100.0**	**24**	**100.0**	**79**	**100.0**
Procurement malpractices						
Migori	1	14.3	14	23.3	5	16.1
Kisumu	1	14.3	11	18.3	9	29.0
Nyando	2	28.6	17	28.3	2	6.5
Siaya	2	28.6	9	15.0	8	25.8
Kisii	1	14.3	9	15.0	7	22.6
Total	**7**	**100.0**	**60**	**100.0**	**31**	**100.0**
Funding inconsistency						
Migori	2	33.3	6	20.7	12	20.3
Kisumu	0	0.0	3	10.3	8	13.6
Nyando	2	33.3	7	24.1	11	18.6
Siaya	1	16.7	8	27.6	15	25.4
Kisii	1	16.7	5	17.2	13	22.0
Total	**6**	**100.0**	**29**	**100.0**	**59**	**100.0**
Understaffing						
Migori	2	20.0	7	16.3	6	23.1
Kisumu	4	40.0	7	16.3	3	11.5
Nyando	1	10.0	10	23.3	9	34.6
Siaya	1	10.0	14	32.6	6	23.1
Kisii	2	20.0	5	11.6	2	7.7
Total	**10**	**100.0**	**43**	**100.0**	**26**	**100.0**
Inconsistent communication						
Migori	4	50.0	8	34.8	1	9.1
Kisumu	0	0.0	3	13.0	1	9.1
Nyando	1	12.5	1	4.3	3	27.3
Siaya	2	25.0	6	26.1	4	36.4
Kisii	1	12.5	5	21.7	2	18.2
Total	**8**	**100.0**	**23**	**100.0**	**11**	**100.0**
Delay in auditing						
Migori	1	20.0	10	30.3	4	19.0
Kisumu	0	0.0	7	21.2	2	9.5
Nyando	2	40.0	4	12.1	7	33.3
Siaya	2	40.0	8	24.2	6	28.6
Kisii	0	0.0	4	12.1	2	9.5
Total	**5**	**100.0**	**33**	**100.0**	**21**	**100.0**

This Table indicates that perception of participants regarding the seriousness of the challenges across the five districts. Notably, the perception that political interference was a very serious challenge was nearly universal. Regarding procurement malpractices, most participants indicated that it was a serious challenge, with Nyando, Migori and Kisumu Districts taking the lead. Whereas funding inconsistency was a very serious challenge according to 25.4% of participants in Siaya, 22.0% in Kisii and 20.3% in Migori Districts, 34.6% of the participants in Nyando, 23.1% in Migori and another 23.1% in Siaya said that understaffing was very serious.

The results presented in Table 2 indicate that among those saying that procurement malpractices was a serious challenge, 17 (28.3%) were in Nyando, 14 (23.3%) in Migori and 11 (18.3%) in Kisumu Districts. Those affirming that the challenge was very serious included 9 (29.0%) participants in Kisumu, 8

(25.8%) in Siaya and 7 (22.6%) in Kisii Districts. Based on this, the analysis obtained a, which was significant at 0.05 error margin. This suggests up to 95% chance that the districts were significantly different in terms of perception about the seriousness of procurement malpractices.

Furthermore, Table 2 presents participants' perceptions regarding the seriousness of funding inconsistency across the five districts, with most participants describing the challenge as very serious.

Among those saying that funding inconsistency was a serious challenge were 8 (27.6%) participants in Siaya, 7 (24.1%) in Nyando and 6 (20.7%) in Migori Districts. In the category of those describing funding inconsistency as a very serious challenge were 15 (25.4%) participants in Siaya, 13 (22.0%) in Kisii and 12 (20.3%) in Migori Districts. Based on this, the study found that the five districts were significantly different in terms of perceptions regarding funding inconsistency (computed χ^2 value = 8.397, df = 8 and p-value = 0.052). This suggests that the districts varied significantly in terms of perception regarding funding inconsistency, implying that funding was more consistent in some districts than in others, which by extension points at the efficiency of the disbursement channel.

In addition, Table 2 indicates that understaffing was a serious challenge across the districts. In this regard, 14 (32.6%) participants in Siaya felt that the challenge was serious, and so were 10 (23.3%) others in Nyando Districts. Those saying that understaffing was a very serious challenge included 9 (34.6%) participants in Nyando and 6 (23.1%) in Migori and Siaya, each. The analysis found that the districts were not significantly different in terms of perception about the seriousness of understaffing (computed χ^2 value = 1.991, df = 8 and p-value = 0.452), suggesting that understaffing was a universal challenge across the districts.

Table 2 further indicates that among those who felt that inconsistent communication from KRB was a serious issue, 8 (34.8%) were in Migori, 6 (26.1%) were in Siaya, while 5 (21.7%) were natives of Kisii. In the category of those indicating that the challenge was very serious, 4 (36.4%) participants were in Siaya, 3 (27.3%) were natives of Nyando, while 2 (18.2%) were in Kisii. Based on this, the analysis obtained a computed χ^2 value of 3.815, with 8 degrees of freedom and a p-value of 0.427, which was not significant. This suggests that the districts were not significantly different in terms of perception regarding the inconsistency of communication from KRB to road agencies. Consequently, interventions to address the challenge should apply universally across all districts.

In addition, Table 2 shows that among those describing delay in external auditing as a serious challenge, 10 (30.3%) were in Migori, 8 (24.2%) were in Siaya and 7 (21.2%) were natives of Kisumu District. Those describing the challenge as very serious were 7 (33.3%) participants in Nyando, 6 (28.6%) in Siaya and 4 (19.0%) in Migori Districts. Based on this, cross tabulation analysis obtained a computed χ^2 value of 1.237, with 8 degrees of freedom and a p-value of 0.146, which was not significant. This suggests that the districts were not significantly different in terms of the perceptions regarding delay in external auditing of agency accounts, further implying that delay in external auditing occurred in all the districts.

CONCLUSIONS

The aim of this study was to identify and document key issues that may justify reforms at the agency level to improve the management, utilization and accountability for road funds. The study found that political interference (71.9%), procurement malpractices (67.1%), funding inconsistency (64.4%), understaffing (54.1%), inconsistent communication (28.8%) and delay in auditing (40.4%) were the challenges affecting operations of road agencies.

The Road Maintenance Levy Fund is one of the funds, which the Government of Kenya decentralized to the district level to spur economic development at the community level. In this regard, up to 16% of the fund goes to constituencies through DRCs; consequently, the involvement of political leaders in decisions on the utilization of road funds is inevitable. For instance, members of the national assembly were involved in DRCs. Hence, the decisions and activities of such committees are prone to political influence. In Kenya, political leaders wield a lot of influence and in most cases, their word is unquestionable. This poses a lot of challenge to public officers managing road funds. Without proper checks on political interference, road agencies may not live up to the expected standards of prudent resource use, quality workmanship and accountability.

In view of this, KRB in collaboration with the Government should formulate clear rules, regulations and procedures for all road agencies in the country. The document should be clear on the separation of roles between committees such as DRCs and Government officials, a definition of political interference, reporting channel, dispute resolution office and sanctions, among other provisions. KRB should sensitize all agencies on the new rules, regulations and procedures and empowered to seek administrative opinion from a definite higher office to curb political interference.

Transparency and accountability are the pillars of public procurement process and effective governance of public institutions. Whereas transparency deals with issues of clarity, accountability deals with answerability to all contenders. In managing public procurement, the application of either concept in isolation creates opportunity for malpractices, which weaken financial management discipline and compromise cost control measures as well as quality workmanship. Efficiency of the procurement process depends on the extent of adherence to procurement regulations and procedures, institutional culture, political will, as well as the competence and integrity of the staff in-charge.

Kenya enacted the law governing public procurement in 2005; however, enforcement remains a key challenge, particularly due to inadequate political will. This suggests that instituting appropriate legislation and establishing the institutional frameworks are not enough to entrench transparency and accountability into the procurement process. There is need for political will right from top leadership to effectively curb procurement malpractices. However, as a short-term measure, linking road agencies and sensitization about the roles of enforcement agencies, viz. the Public Procurement Oversight Authority and Kenya Anti-Corruption Commission, is likely to discourage the incidence of malpractices at the agency level.

Regular communication between KRB and road agencies facilitates reporting, enhances managerial accountability, motivates staff, improves financial management and most importantly, expedites the flow of disbursements. Without follow-up communication from KRB, funds stagnating at the district treasury for longer than necessary may be at risks of diversion or siphoning by public officials. Developing and implementing an appropriate communication strategy is an option that KRB should consider to improve the management of road funds. Follow-up communication with road agencies is particularly necessary from the time of disbursements to ensure that funds reach the agencies as per schedule. The introduction of electronic transfer of funds directly to agency accounts is a viable option that KRB should explore, safeguard against possible abuse and adopt to avoid the bureaucratic bottlenecks inherent in the current system.

Of all resources in an organization, human resource is the most critical because it organizes, plans and manages the utilization of other resources in pursuit of organizational goals. The loss of staff through natural attrition, illness or transfers creates gaps, increases workloads and undermines performance. There is no doubt that coping measures such as multiple tasking affected the accuracy of financial accounts and reporting. In view of this, KRB in collaboration with the Government should consider undertaking a human resource needs assessment to establish staffing gaps and overlaps to justify recruitment and rationalization with a view to enhancing the capacity of road agencies.

External auditing of the agency financial accounts adds credibility to the annual financial reports shared with stakeholders. During the exercise, auditors collect evidence to obtain reasonable assurance that disclosures in the financial statements are free of material misstatements. The timeliness of external auditing remains crucial for the redress of issues arising, continuation of funding and staff motivation. Given the national scope, external auditing of agency accounts is a demanding exercise, requiring the Government to recruit more auditors for expeditious results.

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