

# COMMUNITY AWARENESS, PARTICIPATION AND PERCEPTIONS ABOUT THE ROAD MAINTENANCE LEVY FUND PROJECTS IN KENYA

Daniel Odongo Oronje, Lake Victoria South Water Services Board, Kenya

Charles M. Rambo, University of Nairobi, Kenya

Paul A. Odundo, University of Nairobi, Kenya

## ABSTRACT

*The Government has decentralized about 16% of the Road Maintenance Levy Fund to constituencies to maintain feeder roads. Decentralization of the fund creates opportunity for communities to participate in road maintenance, thus, improve transparency, accountability, ownership and sustainability. Although the Fund had operated for nearly two decades, no study had ever assessed the level of community awareness, participation and perceptions regarding project completion rates. We applied the cross-sectional survey design to source information from 298 community leaders and motorists. Out of 298 respondents, 102 (34.2%) were aware of the Fund, of which only 43 (42.2%) had participated in maintenance projects. Besides, only 34 (33.3%) respondents were positive about project completion rate, the majority, 68 (66.7%) indicated negative opinions. Inconsistent flow of funds (82.4%), political interference (71.6%) and delay in auditing (39.2%) were among the factors affecting project completion rates. Among other aspects, the study recommends the need to sensitize the public about RMLF to improve awareness and participation; secure a hotline number to improve reporting; publicize annual work plans, budgets and expenditure reports for validation by the public; introduce electronic transfer of funds to agency accounts; develop rules, regulations and procedures to safeguard agencies from political interference.*

**JEL:** 016

**KEYWORDS:** Community Awareness, Community Participation, Road Maintenance Levy Fund, Road Completion Rate, Kenya Roads Board

## INTRODUCTION

Participatory development is an important approach towards enabling communities to play an active role in projects initiated to address issues affecting their life and livelihoods, thereby assure the sustainability of such projects (World Bank, 2004). As noted by Thwala (2010), communities are no longer mere recipients of development projects; rather, they have become critical stakeholders that have an important role to play in the planning, implementation, management and evaluation of projects in their areas.

Community awareness and participation in development activities are not new concepts; for more than three decades, the concepts have gained recognition as essential requirements for the success of all development projects, including road maintenance (Nour, 2011). The benefits of community awareness and participation in development projects include cost reduction, resource supplementation and better targeting of the actual needs, especially when they are involved right from the planning phase. In addition, the two concepts nurture a sense of ownership, responsibility, accountability and better use of project resources (Moser, 1987; Nour, 2011). Community members participate in projects as individuals or through their organizations, associations, private enterprises or non-governmental organizations.

The Road Maintenance Levy Fund (RMLF) came into existence through the Road Maintenance Levy Fund Act number 9 of 1993 to facilitate the maintenance of public roads in all parts of Kenya. Kenya Roads Board (KRB) manages the Fund, which replenishes through fuel levy on petroleum products and transit toll collections. KRB is a state corporation that oversees and coordinates the development and maintenance of roads in the country. It came into existence in 1999 through the Kenya Roads Board Act number 7 of 1999 (Government of Kenya [GoK], 1993; 2000; 2012).

Section 6 of the Act gives KRB the mandate to undertake the following functions: administer funds derived from the fuel levy and any other funds that may accrue to it; oversee the road network in Kenya by coordinating its development, rehabilitation and maintenance. The law also mandates KRB to be the principal adviser to the Government on all matters related to the development, rehabilitation and maintenance of the road network in Kenya (GoK, 2000; Nyangaga, 2007).

Furthermore, KRB monitors and evaluates the activities undertaken by road agencies in the development, rehabilitation and maintenance of roads; ensure that all procurements for works and materials proceed in accordance with procedures and guidelines in the Public Procurement and Disposal Act of 2005. In addition, the institution recommends to the Government necessary periodic reviews of the fuel levy and alternative revenue sources for the development, rehabilitation and maintenance of roads; it also determines the allocation of financial resources from the fuel levy fund (GoK, 2000).

As noted by Aukot, Okendo and Korir (2010), the Kenya Revenue Authority (KRA) collects the levy against every litre of petrol or diesel at the port of entry. RMLF thus came into place as a supplementary source of funding towards road maintenance, which initially relied on public tolls (Aukot, Okendo & Korir, 2010). In this regard, KRB allocates about 57% of the fund is allocated to the Department of Roads; 24% goes to District Roads Committees (DRCs), local authorities and the Kenya Wildlife Service (KWS). Besides, 16% goes to constituencies for the maintenance of rural access and feeder roads through DRCs and 3% goes towards overhead costs at KRB headquarters (Kenya Anti-Corruption Commission [KACC], 2007; Nyangaga, 2007; GoK, 2006; 2012).

Section 17 of the KRB Act establishes DRCs to among other functions: maintain, rehabilitate and develop constituency roads, submit to the KRB an annual roads program with a comprehensive plan of action and estimated costs of each activity. DRCs also amplify citizens' concerns on matters related to road maintenance as well as monitor the performance of those responsible for road maintenance and rehabilitation (GoK, 2000). The DRCs manage district roads comprising of class D roads, linking locally important centres to each other or to higher class roads; class E roads, linking minor centres and other unclassified rural roads (excluding urban roads), which are managed by local authorities (Aukot *et al.*, 2010).

Decentralization of the fund gives communities the opportunity to participate at every stage of road maintenance activities, including prioritization, planning and implementation, as well as monitoring and reporting. In this regard, the Fund should interlock with community priority needs related to transportation. Community awareness and participation in RMLF projects is also crucial for transparency and accountability, with a view to eliminating misappropriation or poor workmanship issues. KRB expects community members to take up an active role as key stakeholders in road maintenance through RMLF resources (KACC, 2007; Aukot *et al.*, 2010).

Community awareness and participation in road maintenance activities is encouraged by publishing the breakdown of projects earmarked for implementation in a particular financial year and their respective costs through the print media. Community members are also encouraged to seek more information relating to the fund from relevant government offices; they are also encouraged to participate in local

public forums discussing issues related to road maintenance project, among other development items. In view of this community, members should advocate against resource diversion to particular projects or misappropriation of funds within their localities (KACC, 2007; Aukot *et al.*, 2010). This they can achieve through petitions to relevant authorities including KACC, DRC chairpersons, the district commissioners or political leaders (KACC, 2007).

Various empirical studies have shown that community awareness and participation significantly associate with project success. For instance, Khwaja (2004) found that community participation improves performance in non-technical decisions; however, for technical decisions, community participation yields negative outcomes. Other studies that have demonstrated the importance of community awareness and participation, include the evaluation of road construction projects in Botswana and Malawi (Thwala, 2009; World Bank, 2004), as well as community water projects, again, in Malawi (World Bank, 2004) and a community irrigation project in Philippines (World bank, 2001).

In Kenya, the literature review revealed a paucity of information on the level of community awareness and participation in RMLF projects. We conducted this study in Kisumu, Siaya, Nyando, Kisii and Migori Districts of Nyanza Province. The remainder of the paper includes sections on literature review, data and methodology, results and discussions as well as conclusions.

## LITERATURE REVIEW

The concepts of community awareness and participation emerged in the early 1970s from the community development movement in developing countries and have since become important bases for project success (Thwala, 2010). Community awareness and participation are particularly necessary due to the failure of the top-down approaches to address challenges such as high poverty levels and environmental degradation among others. Consequently, emphasis shifted from imported technical professional solutions to community-based development, recognizing local knowledge and skills of the people living in poverty and making effort to engage them in participatory programs (Warburton, 2000; Cooke & Kothari, 2001).

As noted by the World Bank (2004), community awareness and participation are processes through which through which stakeholders' gain influence and control over development initiatives, decisions and resources affecting their lives and livelihoods. To many developing governments, community awareness and participation are valuable in improving community welfare, training people in local administration and extending government control through self-help initiatives (McCommon, 1993). However, McCommon (1993) points out that the policy on community development has not been successful in many countries, particularly due to bureaucratic top-down approach adopted by postcolonial governments.

Community participation brings forth several advantages to communities in terms of empowerment, capacity building, improving project effectiveness and efficiency; project cost sharing and enhancing ownership (Thwala, 2010). The extent of participation varies from information sharing, consultation, decision-making and initiation of action. The concept is successful in situations where community members and community-based organizations take up active roles and responsibilities than where development actors merely target them by baseline surveys or consensus-building meetings (Thwala, 2001; 2010). Community-based organizations serve as channels for information flow to communities to enable them make informed decisions and choices (Thwala, 2009).

On the same note, the World Bank (2004) points out that the success of community awareness and participation depend on the extent to which community members are involved to support various phases

of project life, including design, implementation, supervision and evaluation. Furthermore, community awareness and participation improves through local committees and governance structures for better mobilization, participation and serve as interface between project management and community members (Adams, 1999). However, this model of community has elicited criticisms for being too project-based, implying that it does not include full spectrum of community awareness and participation approaches. As such, the framework adopts a means-oriented approach; through which community awareness and participation is emerge as a means towards the realization of project goals (Abbot, 1991; Thwala, 2010).

The alternative approach, which is ends-oriented, perceives community awareness and participation as processes through which communities are empowered to play a more active role in mobilization, planning, setting objectives, goals and targets; management, implementation as well as monitoring and evaluation by participating in the appraisal of road works, as well as recognition of achievements, and redefinition of community needs. In the process of participation, community members many be capacitated through training in basics of accounting and communication skills to enable them understand and correctly interpret financial disclosures by road agencies (Abbot, 1991; Thwala, 2010). In the same vein, Adams (1999) points out that community participation does not simply mean being involved in through casual labour; rather, it means contributing ideas, making decisions and taking responsibility.

More still, Nelson and Wrights (1995) suggest that awareness creation and empowerment in terms of information and necessary skills should precede an ideal model for community participation. Community members can play a more active role when they have knowledge about a project and supported with necessary training for better understanding of their roles in the project cycle. In this regard, awareness and empowerment serve as the entry point for active community participation (Nelson & Wrights, 1995). The principle of empowerment suggests that people participate because it is their right to do so; moreover, participation is the natural result of empowerment (De Beer & Swanepoel, 1998; Thwala, 2009).

Arrossi (1994) also maintains that the term participation can apply in different ways, such as a means to reduce project costs, provision of cheap labour and a means for support mobilization. However, a very different understanding of participation is the one that encourages the community to become involved in the project's decision-making process, influence resource use and activity choices. Similarly, the Asian Development Bank, contend that community participation is far more than mere contribution through labour or supplies, it involves taking greater responsibility in decision-making processes, as well as feedback to project implementers.

Despite an important role played by community participation, it associates with some problems. In this regard, Connor (1997) found that one of the problems relates to coordination and integration of diverse interests into the project plan and implementation. When community participation involves many diverse groups, bringing together their different needs in the design and implementation of the project can prove to be very challenging. Moreover, diverse interests may give rise to collective action problems as well as conflict among participants. In this regard, some participants may perceive inadequate integration when the outcomes seem to be significantly different from what they perceived in the outset of planning process (Nelson & Wrights, 1995).

Furthermore, various empirical studies have shown that community awareness and participation significantly associate with project success. For instance, Khwaja (2004) assessed whether increasing community awareness and participation benefit to the success of development projects. The study found that while community participation improves project outcomes in non-technical decisions, increasing community participation in technical decisions actually led to poor performance.

A study conducted in Botswana, which evaluated the impact of community awareness and participation in the national labour-intensive road construction found that the involvement of community members had resulted to significant achievements. The program created over 3,000 jobs (total employment within the public sector is only 20,000) and the construction and upgrade of nearly 2,000 kilometres of road (Thwala, 2009). A similar program in Malawi resulted to the upgrading of over 3,845 kilometres of district roads in 16 out of 24 districts in the country. In this regard, Thwala (2009) linked the success of the program to community participation.

Still in Malawi, a study conducted by the World Bank (2004) indicated that community members were involved in a water supply project right from the planning stage, construction, operation and distribution. The project recruited field workers locally and traditional community groups formed management committees, with minimal government support. At the time of the evaluation, more than 6,000 standpipes installed nationwide were still in working order, thus, guaranteeing high quality, reliable and convenient water supply to more than one million Malawians through systems that they themselves built, own and maintain (World Bank, 2004).

In Philippines, an evaluation of another World Bank project found that over a period of ten years, the National Irrigation Administration shifted from a top down government approach to heavy reliance on local farmers in the design, operation and maintenance of local irrigation systems. Due to increased community participation, the study revealed that the canals and structures worked better, rice yields improved by 20% and irrigated were 35% greater than in control groups without community participation (World Bank, 1991).

## DATA AND METHODOLOGY

We applied the cross-sectional survey design to guide the research process, including planning, training and pretesting, data sourcing, data processing and analysis, as well as reporting. The study targeted community members, including leaders, motorists and officials of public transport associations. Inclusion in the sample depended on voluntary participation; consequently, out of 319 people contacted, 298 (93.4%) were successfully interviewed. We collected primary data in May 2009 and the process involved identification of eligible participants, consenting and interviewing.

We applied purposive sampling to select villages along main roads in the districts and to select community leaders and public transport association officials. We sampled motorists through a random process in nearby town centres. Most respondents in this category were drivers of commuter service vehicles and taxicabs. We applied a survey questionnaire with structured and semi-structured questions to source the data.

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 community awareness and participation in road maintenance projects. 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 began on the premise that community awareness is a critical antecedent to community participation, which in turn, enhances transparency and accountability in the management of road funds.

Besides, a proper management and utilization of road funds is important for a high rate of project success. A low success rate of road projects under the Road Maintenance Levy Fund (RMLF) may be a sign of gaps in the implementation of the Fund. We have presented the findings in this sequence: background profile of participants, community awareness, community participation and perceptions about project completion rate.

The study covered 298 respondents, which included 116 (38.9%) community leaders, 142 (47.7%) motorists and 40 (13.4%) officials of public transport associations, including commuter service and taxicab associations. Table 1 shows that most respondents, 242 (81.2%) were men, while women were 56 (18.8%). Besides, the respondents were aged between 18 and 66 years, with up to 108 (36.2%) falling in the 30 to 39 years age bracket. Cumulatively, up to 199 (66.8%) were in the prime age bracket of 30 to 49 years. Table 1 shows the background profile of the respondents.

Table 1: Background Profile of Respondents

Participants' attributes	Frequency	Percent
<i>Gender</i>		
Male	242	81.2
Female	56	18.8
<b>Total</b>	<b>298</b>	<b>100.0</b>
<i>Age</i>		
<20 yrs	7	2.3
20-29 yrs	29	9.7
30-39 yrs	108	36.2
40-49 yrs	91	30.5
50-59 yrs	45	15.1
60 yrs+	18	6.0
<b>Total</b>	<b>298</b>	<b>100.0</b>
<i>Education level</i>		
None	1	0.3
Primary	52	17.4
Secondary	149	50.0
College	84	28.2
University	12	4.0
<b>Total</b>	<b>298</b>	<b>100.0</b>
<i>Profession</i>		
Teachers	27	9.1
Farmers	45	15.1
Business	59	19.8
Drivers	118	39.6
Administrators	22	7.4
Contractors	4	1.3
Lawyers	7	2.3
Traffic police	12	4.0
Nurses	1	0.3
Engineers	3	1.0
<b>Total</b>	<b>298</b>	<b>100.0</b>

*This Table presents the distribution of respondents, in terms of attributes such as gender, age, educational attainment and profession. The first column indicates attributes and measurement categories, the second column shows frequency distributions, while the third column indicates valid percentages. Notably, up to 81.2% of the respondents were men, 66.7% were aged between 30 and 49 years, 50.0% had attained some secondary education, while 39.6% were drivers by profession.*

The study found that one-half, 149 (50.0%) respondents had attained some secondary school education, 84 (28.2%) reported having some college education, while those with university education were 12 (4.0%). Cumulatively up to 245 (82.2%) had attained secondary education or higher, which suggests that most respondents were people with ability to make significant contribution to community-based projects in decision-making, rather than providing manual labour only.

In addition, respondents were diverse in terms of professional background, with up to 118 (39.6%) being drivers, 59 (19.8%) respondents were in business, 45 (15.1%) were farmers, 27 (9.1%) said they were

teachers, while 22 (7.4%) were administrators, including public administrators such as district officers and chiefs, as well as civil servants in other government ministries. Even though some respondents had retired from formal employment, they were actively participating in community development activities by virtue of their wealth of knowledge and professional skills.

The study found that out of 298 respondents, only 102 (34.2%) were aware of the Fund, with more than two-thirds, 196 (65.8%) indicating that they had never heard of the Fund. This finding suggests that the Fund was not a popular initiative at the community level. Contrastingly, the awareness of other development funds at the community level, such as Constituency Development Fund, Constituency Bursary Fund and Youth Enterprise Development Fund was near universal. This suggests that KRB and the government had not done enough to create awareness about the road maintenance Fund.

A low level of awareness may have far-reaching implications on the participation of community members in road maintenance projects funded through the initiative. That awareness precedes active participation is a matter of logic. Across the districts, Table 2 shows that the proportion of respondents aware of the road maintenance Fund was highest in Kisumu and Kisii Districts, as reported by 35 (47.3%) and 30 (45.5%), respectively. Contrastingly, the proportion of respondents reporting lack of awareness was highest in Migori and Nyando Districts, according to 43 (82.7%) and 46 (75.4%), respectively. Based this, the cross tabulation analysis obtained a computed  $\chi^2$  value of 23.447, with 4 degrees of freedom and a p-value of 0.001, which was significant at 0.01 error margin. This suggests up to 99% chance that awareness about the Fund was significantly different across the districts, with some districts reporting higher levels of awareness than others do. Nonetheless, the overall picture shows that awareness level about the Fund remains poor even in those districts that were relatively better off. Hence, awareness creation interventions should cover the whole country.

Table 2: Community Awareness and Participation in the Road Maintenance Levy Fund

Awareness about RMLF	Aware		Not aware		n
	Frequency	Percent	Frequency	Percent	
Migori	15	24.6	46	75.4	61
Kisumu	35	47.3	39	52.7	74
Nyando	9	17.3	43	82.7	52
Siaya	13	28.9	32	71.1	45
Kisii	30	45.5	36	54.5	66
<b>Overall</b>	<b>102</b>	<b>34.2</b>	<b>196</b>	<b>65.8</b>	<b>298</b>

  

Participation in RMLF projects	Ever participated		Never participated		n
	Frequency	Percent	Frequency	Percent	
Migori	6	40.0	9	60.0	15
Kisumu	19	54.3	16	45.7	35
Nyando	2	22.2	7	77.8	9
Siaya	5	38.5	8	61.5	13
Kisii	11	36.7	19	63.3	30
<b>Overall</b>	<b>43</b>	<b>42.2</b>	<b>59</b>	<b>57.8</b>	<b>102</b>

*This Table presents information on the level of community awareness and participation in the Road Maintenance Levy Fund across the five districts. Notably, awareness level was highest in Kisumu at 47.3% and Kisii at 45.5%. However, the proportion indicating lack of awareness about the Fund was highest in Nyando (82.7%) and Migori (75.4%). The results show that participation was highest in Kisumu (54.3%), Migori (40.0%) and Siaya (38.0%). However, the proportion of those who had not participated in such projects was highest in Nyando (77.8%), Kisii (63.3%) and Siaya (61.5%).*

We requested those aware of the Fund to indicate how they first came to know about it. The results indicated that that 29 (28.4%) first heard about the Fund through radio, 41 (40.2%) mentioned friends and colleagues, while 12 (11.8%) received information through community leaders. Other ways through which respondents first heard about the Fund included newspapers, 9 (8.8%); community forums, 6 (5.9%); internet, 3 (2.9%) and television, 2 (2.0%). The results suggest radio and friends/colleagues played the most important role in awareness creation; hence, KRB and the Government should consider radio and social media in the communication strategy to popularize the road maintenance Fund.

The results show that out of 102 people awareness of the Fund, only 43 (42.2%) had participated in road maintenance projects funded through RMLF. The results show a very low level of participation in road maintenance projects, even among community members who reported awareness of the Fund, suggesting that besides awareness, other factors such as education level, professional background and gender influenced community participation in road maintenance projects. Respondents also cited a perception that road construction matters were technical and meant for people with technical background.

Across the districts, Table 2 shows that participation was highest in Kisumu, with 19 (54.3%), followed by Migori, where 6 (40.0%) respondents had participated. Contrastingly, the proportion of those who had not participated in such projects was highest in Nyando, 7 (77.8%) and Kisii, 19 (63.3%). The analysis obtained a computed  $\chi^2$  value of 14.081, with 4 degrees of freedom and a p-value of 0.024, which was significant at 0.05 error margin, thereby suggesting up to 95% chance that participation in projects funded through RMLF varied significantly across the districts. Nonetheless, given that the overall proportion of participants was less than half (42.2%), readers should interpret the proportions indicated in Table 2 carefully, so as not over-estimate the level of community participation in road projects.

The study found that respondents participated at various levels of the project cycle. In this regard, Table 3 shows that 16 (37.2%) participated in road prioritization, where they provided views regarding the order in which road agencies were to carry out maintenance work, based on the economic importance of each road.

In addition, up to 10 (23.3%) respondents said they participated in the implementation of road projects as casual workers, 6 (14.0%) participated in the tendering process bidders, 4 (9.3%) respondents involved in the planning and budgeting phase. Besides, 3 (7.0%) monitored the progress of road maintenance projects in their areas, while only 1 (2.3%) had ever reported to the authorities about the quality of workmanship.

Table 3: Form and Frequency of Participation in Projects Funded through the Road Fund

Form of participation	Ever participated		Once		Twice		>Twice	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Prioritization	16	37.2	2	12.5	4	25.0	10	62.5
Planning	4	9.3	1	25.0	1	25.0	2	50.0
Tender adjudication	2	4.7	1	50.0	1	50.0	0	0.0
Bidder	6	14.0	1	16.7	3	50.0	2	33.3
Contractor	1	2.3	1	100.0	0	0.0	0	0.0
Casual worker	10	23.3	1	10.0	3	30.0	6	60.0
Monitoring	3	7.0	1	33.3	2	66.7	0	0.0
Reporting	1	2.3	1	100.0	0	0.0	0	0.0
<b>Total</b>	<b>43</b>	<b>100.0</b>	<b>9</b>	<b>20.9</b>	<b>14</b>	<b>32.6</b>	<b>20</b>	<b>46.5</b>

*This Table presents information on the various forms of through which the respondents participated in road maintenance projects. The table shows that community members were involved in road prioritization (37.2%); they also participated in actual implementation of works as casual workers (23.3%), in the tendering process as bidders (14.0%) and planning (9.3%). The results show that at the prioritization stage, 62.6% of the respondents had participated more than twice, among casual workers; up to 60.0% of the respondents had participated more than twice, while among bidders, 50.0% of the respondents had participated twice.*

Furthermore, the results presented in Table 3 show that among those who had participated in road prioritization, up to 10 (62.6%) respondents reported participating more than twice, 4 (2.0%) had participated twice, while 2 (12.5%) had participated only once. Among casual workers, 6 (60.0%) respondents had participated in the implementation of road maintenance projects more than twice, while 3 (30.0%) had participated twice. Respondents indicated that the frequency of participation in various activities of road maintenance projects had influenced their experience and perceptions about the completion rate of such projects.



Among those participating in the tendering process as bidders, only 2 (33.3%) respondents had participated more than twice, 3 (50.0%). In planning, 2 (50.0%) respondents had participated more than twice, while in monitoring, 2 (66.7%) participants said they had participated only twice. Again, it is important to note that the level of community participation in road maintenance projects was very low (42.2%); hence, readers should interpret the proportions in figure 4 carefully.

## CONCLUSIONS

The purpose of this study was to assess the level of community awareness, participation and perceptions regarding the completion rate of RMLF projects. The study found that only 102 (34.2%) out of 298 respondents were aware of the RMLF. The awareness level was relatively higher in districts such as Kisumu (47.3%) and Kisii (45.5%), than in Nyando (17.3%) and Migori (24.6%). However, on aggregate, the awareness about RMLF remains low in the study area; thus, necessitating appropriate interventions to enhance its popularity.

The low level of awareness about RMLF among community leaders and road users is suggestive that KRB and the government have not done enough to sensitize the public about the funding initiative, its purpose and management structure. Such low level of awareness limits the extent to which community members can make their contribution to enhance transparency and accountability in the management of the road funds.

Due to the low level of awareness, the level of participation in RMLF projects was even lower. In the simplest logical sense, people can only participate in events and activities with which they are familiar. Among those who were aware of the Fund, only 43 (42.2%) had participated in the projects. Participation was relatively higher in Kisumu (54.3%) and Migori (40.0%) than in Nyando (22.2%) and Kisii (36.7%). However, the need for awareness creation campaigns remains inevitable for a higher level of community awareness and participation in road maintenance projects. Community participation plays a key role in enhancing accountability by ensuring that road agencies become accountable and responsible in their role as stewards of the fund. When community members are fully involved at various levels of the project cycle, they nurture a sense of ownership and responsibility. This is likely to spur factual reporting of cases of poor workmanship, incomplete work or embezzlement of road funds.

Empowering community members with information about RMLF is likely to encourage their participation, which in turn, will strengthen proper utilization of funds. For this matter, KRB and the Government should initiate a sensitization campaign targeting the public to improve awareness about the Fund and to spur participation in road maintenance projects. Community can play a critical role in the reporting or confirming the quality of workmanship on the ground. Thus, KRB should consider creating a system that may connect with communities directly, this may involve creating a register to capture reported issues, securing a hotline number to encourage reporting, facilitating the investigative department to establish the credibility of reported issues, as well as enforce provisions of the RMLF Act.

In addition, KRB can enhance the role of community members by publicizing annual work plans, budgets and expenditure reports to enable citizens connect with a road with which they are familiar. This will enable community members to know amount of funds set aside for their roads. In case financial reports are not correct, then community members can link up with KRB to provide their facts to necessitate investigations and appropriate disciplinary actions to agencies found culpable.

Furthermore, 33.3% of those who were aware of the RMLF were positive about project completion rate, while up to 66.7% indicated negative opinions. Consequently, RMLF was not a successful initiative, because various factors constrained the completion of its projects. Factors constraining the project

completion rate included inconsistent flow of funds (82.4%), political interference (71.6%), delay in external auditing (39.2%) and financial misappropriation by some road agencies (20.6%). Inconsistent flow of funds is likely to affect the implementation of work plans, leading to non-completion of maintenance projects. For this matter, KRB should initiate various measures to improve the flow funds, including opening up communication with road agencies, particularly when funds are disburse to avoid stagnation along the disbursement channel. KRB should also introduce electronic transfer of funds directly to agency accounts to avoid the bureaucratic bottlenecks inherent in the current system.

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.

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.

## **ACKNOWLEDGEMENT**

We thank all the individuals and institutions who supported this study through ideas, information and logistics. First, we are grateful to the University of Nairobi for granting the opportunity for Daniel Odongo Oronje to pursue the Master of Arts degree in Project Planning and Management. Secondly, we acknowledge the support of Dr. Francis N. Nyangaga and the entire Board of Directors of the Kenya Roads Board for logistical support to the study team. Thirdly, we are indebted to Mr. Tom Odhiambo, a social science research specialist and writer for analyzing the data and shaping the manuscript. We thank Mr. Chris D. Agunga for support in data processing analysis. Finally, we remain indebted to all the key informants who spared their time to provide the requisite information.

## **BIOGRAPHY**

Daniel Odongo Oronje is a Manager, Rural Water and Sanitation, Lake Victoria Water Services Board. He holds a master's degree in Project Planning and Management and a bachelor's degree in Civil Engineering with close to 13 years experience in the planning, management, construction and supervision of roads. He recently moved to the water and sanitation sector. He holds further training in labour based road maintenance technology and ISO 9001 Internal Audit and EIA audit. He is a registered civil engineer with the Engineers Registration Board of Kenya. His experience in the roads sector spans over 9 years. His is reachable through telephone number: + 254 722 387 186 or + 254 729 330 089; email address: oronjed@yahoo.com

Dr. Charles M. Rambo is a Senior Lecturer and coordinator of Postgraduate programs at the Department of Extra Mural Studies, University of Nairobi, Kenya. His academic interests include financial

management, small and medium enterprises, small-scale farming and education financing. His previous work appears in journals such as *Journal of Continuing, Open and Distance Education*, *International Journal of Disaster Management and Risk Reduction* and the *Fountain: Journal of Education Research*, *African Journal of Business and Management*, *African Journal of Business and Economics*, as well as *International Journal of Business and Finance Research*. He is reachable at the University of Nairobi through telephone number, +254 020 318 262; Mobile numbers +254 0721 276 663 or + 254 0733 711 255; email addresses: rambocharles@yahoo.com or crambo@uonbi.ac.ke

Dr. Paul A. Odundo is a Senior Lecturer at the Department of Educational Communication Technology, University of Nairobi, Kenya. He has over 15 years experience in capacity building, teaching and supervising students' projects at the University level. He became a Research Associate at Institute of Policy Analysis and Research (IPAR) in 2001. His academic and research interests include institutional capacity building, decentralized development, instructional planning and management, educational administration. His previous work appears in IPAR Discussion Paper Series, the *Fountain: Journal of Education Research* and *African Journal of Business and Management*. He is reachable at the University of Nairobi through telephone number, +254 020 318 262; Mobile numbers +254 0722 761 414; email address: odundopaul@yahoo.com

## REFERENCES

- Abbot, J. (1991). *Community Participation in Development*. University of the Witwatersrand Course Notes, Environmental Health Engineering. Department of Civil Engineering, Johannesburg.
- Adams, J. (1999). *Managing Water Supply and Sanitation in Emergencies*. Oxford: Oxfam GB
- American Statistical Association (1999). *Survey Research Methods Section Information*.
- Arrossi, S. (1994). *Funding Community Initiatives: The Role of NGOs and Other Intermediary Institutions in Supporting Low Income Groups and Community Organisations in Improving Housing and Living Conditions in the Third World*. London: Earthscan.
- Aukot, E., Okendo, D.O. and Korir, K. eds. (2010). *A Guide to Community Participation*. Nairobi: Kituo Cha Sheria.
- Bryman, A. and Cramer, D. (1997). *Quantitative Data Analysis with SPSS for Windows: a guide for Social Scientists*. London: Routledge
- Connor, D.M. (1997). *Participative Social Impact Assessment and Management: Cross-cultural Application*. From < [http:// www. islandnet.com/~connor/cross\\_cultural.html](http://www.islandnet.com/~connor/cross_cultural.html)> (Retrieved March 20, 2013).
- Cooke, B. and Kothari, U. eds. (2001). *Participation: The New Tyranny*. London and New York: Zed Books.
- De Beer, F. and Swanepoel, H. (1998). *Community Development and Beyond: Issues, Structures and Procedures*. Pretoria: J. L. Van Schaick Publishers.
- Government of Kenya (1993). *Road Maintenance Levy Fund, No. 9, 1993*. Nairobi: Kenya National Law Reporting.

- Government of Kenya (2000). *Kenya Roads Board Act No. 7, 1999*. Nairobi: Kenya National Law Reporting.
- Government of Kenya (2006). *Management of the Roads Sub-sector for Sustainable Economic Growth, Sessional Paper No. 5 of 2006*. Nairobi: Ministry of Roads and Public Works.
- Government of Kenya (2012). *Policy on Aligning the Roads Sub-Sector with the Constitution*. Nairobi: Ministry of Roads and Public Works.
- Kenya Anti-Corruption Commission (2007). *Examination Report into the Systems and Policies, Procedures and Practices of the Roads Sub-Sector*. Nairobi: Directorate of Preventive Services.
- Khwaja, A.I. (2004). "Is Increasing Community Participation Always a Good Thing?" *Journal of the European Economic Association*, Vol. 2, No. 2, pp. 427-436.
- McCommon, C. (1993). *Community Management of Rural Water Supply and Sanitation Services: Water and Sanitation for Health (WASH) Technical Report*. Washington DC: USAID.
- Moser, C.O.N. (1987). "Approaches to Community Participation in Urban Development Programs in Third World Countries", In Bamberger, ed. *Readings in Community Participation*, Washington, DC: World Bank.
- Nachmias, C.F and Nachmias, D. (1996). *Research Methods in the Social Sciences, 5<sup>th</sup> Edition*. London: Arnold.
- Nelson, N. and Wright, S. eds. (1995). *Power and Participatory Development: Theory and Practice*. London: Intermediate Publications.
- Nour, A.M. (2011). "Challenges and Advantages of Community Participation as an Approach for Sustainable Urban Development in Egypt." *Journal of Sustainable Development*, Vol. 4, No. 1, pp. 79-91.
- Nyangaga, F. (2007). *International Seminar on Road Financing and Investment Road Fund Management: Best Practices*. Nairobi
- Owens, K.L. (2002). *Introduction to Survey Research Design*. SRL Fall 2002 Seminar Series <http://www.srl.uic.edu> retrieved on March 20, 2013.
- Rindfleisch, A., Malter, A.J., Ganesan, S. and Moorman, C. (2008). "Cross-Sectional Versus Longitudinal Survey Research". *Journal of Marketing Research*, Vol. 45, No. 3, pp. 1-23.
- Thwala, D.W.A. (2010). "Community participation is a necessity for project success: A Case Study of Rural Water Supply Project in Jeppes Reefs, South Africa". *African Journal of Agricultural Research*, Vol. 5, No. 10, pp. 970-979.
- Thwala, W.D.A. (2001). *Critical Evaluation of Large-Scale Development Projects and Programs in South Africa 1980-1994*, a Master of Science Thesis, University of the Witwatersrand.
- Thwala, W.D.A. (2009). "Experiences and Challenges of Community Participation in Urban Renewal

Projects: The Case of Johannesburg, South Africa.” *Journal of Construction in Developing Countries*, Vol. 14, No. 2, pp. 37-54.

Warburton, D. ed. (2000). *Community and Sustainable Development: Participation in the Future*. London: Earthscan Publications Limited.

World Bank (1991). *World Development Report*. New York: Oxford University Press.

World Bank (2001). *World Development Report*. Washington DC: World Bank.

World Bank (2004). *World Development Report: Making Services Work for Poor People*. Washington DC: World Bank