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ABSTRACT

This study investigated the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya. Explanatory survey design was used to explain hypothesized relationships. The study targeted 474 respondents from 237 registered community water projects (registered community boreholes) in Kakamega County, Kenya. From a target population of 474 respondents, a sample size of 217 was calculated as per Taro Yamane's proportional sampling technique formula. Primary data was collected by means of self-administered structured questionnaires. Collected data was coded, cleaned, tabulated and analyzed using descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences, version 24. From the values of unstandardized regression coefficients with standard errors in parenthesis, the independent variable; resource mobilization was significant predictors of sustainability of community water projects (dependent variable). The study concluded that resource mobilization significantly influences sustainability of community water projects in Kakamega County.

Key Words: *Resource Mobilization, Sustainability, Community Water Projects*

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INTRODUCTION

The success of any community development projects is based on three issues; the community, project results and external assistance (Luvenga, 2015). Thus a community project is sustainable if the community/beneficiaries are capable on their own without the assistance of outside development partners, to continue producing results for their benefit for as long as their problem still exists. In this regard major development organizations including multi-lateral agencies like the World Bank and the International Monetary Fund have arrived at a near consensus that projects cannot be sustainable and long-lasting unless community's participation is made central to the planning and management of projects (Kumar, 2002).

Further, community based approaches to development are among the fastest growing mechanisms for channeling development assistance and according to conservative calculations, the World Bank's lending for community driven development projects has really gone up, a trend that is supported by anecdotal and empirical evidence suggesting community participation is an unqualified good in terms of project outcomes and sustainability (Mansuri and Rao, 2004).

The other aspect observed by Beyene (2006) is physical resources: This is generally associated with community members providing material resources for the project to be implemented for instance, providing material for construction like bricks, hay, trees or construction tools like spades. Lastly, Beyene (2006) observed that community participation could also be in monetary resources/donations which is generally most demanded by development initiatives and is considered by many to be a less active form of community participation because relatively little time is involved. Depending on the level of poverty of a community, if there is proper mobilization community members can participate in community initiatives through monetary support. None of these forms of community participation can be assigned priority over the other, though it is evident that each form of participation can yield a varying degree of quality and impact on the project implemented.

Further, Binder (2008) asserted that globally, water is the most important natural resource, indispensable for life and at the same time the backbone for growth and prosperity for mankind. The General Assembly of the United Nations drew critical attention to the importance of water to sustainable development and poverty alleviation by declaring 2003 The International year of Fresh water with one of its aims being to reassert the Millennium Development Goals target for water of reducing by half the proportion of people without the access to safe drinking water and stop the unsustainable exploitation of water resources (United Nations Development Program – Water and Sanitation Program -UNDP-WSP, 2006).

Most reports have shown that Kenya is a water scarce country with a per capita of 647cubic meter, which is below the world recommended per capita of 1000cubic meters (Mogaka, 2013)). There is unequal distribution of water in the country with some areas having excess and others having less than they require, which on average makes the country water scarce. Due to the unequal distribution, water sources are often far from the village, and women must walk for hours to fetch water on a daily basis. Some families even keep their daughters out of school so that they can help collect water. These girls follow their mothers and walk, on average, 10 miles every day.

Statement of the Problem

Globally, water is a basic need but access to clean water in both rural and urban setting in Kenya has been a perennial problem because rural dwellers are brainwashed with the free water service from community wells and rivers while urban dwellers expect efficient water service from urban water service providers. In this regard, most NGOs or development partners have initiated water projects in both rural and urban settings with minimal success because most of these water projects fall short of sustainability due to a number of community related factors.

Therefore, few researches on sustainability of water projects especially community water projects have yielded inconceivable results due to little empirical data or lack of identification of significant community related factors that can enable sustainability of community water projects. For instance researchers such as; Khwaja (2004); Norton (2006); Mala (2009); Cole (2009); Thompson (2010);Schwartz (2010); Akumu (2011); Mulwa (2012) among others suggested the need for resource mobilization in successful implementation of community projects because past studies had little empirical data on this factor that could significantly influence performance of community water projects.

Secondly another stream of researchers; Kasiaka (2004); Baiya (2005);Mbugua (2008); Mathenge (2014) recommended the need for monitoring and evaluation of community water projects while; World vision (2002); Garin (2002); Fry (2003); Arku (2011); Diy (2015 among others showed little empirical data on the need of community participation in community projects, thus recommended an intensive research on this important factor. Lastly, other scholars; WSP (2002); Allouche (2011); Kipkeny (2014); Kitur(2015); Mutonga (2015) among others have also shown inconsistent assertions on what constitutes capacity building in community projects, thus recommended empirical inquiries on influence of capacity building on community development projects.

Therefore lack of sufficient empirical data on significant factors that influence sustainability of community water projects motivated this research to investigate the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya.

Objectives of the study

The objective of the study was to investigate the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya.

Research Hypotheses

H_{01}: Resource mobilization does not significantly influence sustainability of community water projects in Kakamega County.

LITERATURE REVIEW

Theoretical Review

Resource Mobilization theory

This theory was advanced by Buechler (1995) and stated that a core professional group in a social movement organization works towards bringing money, supporters, attention of the media and donors, alliances with those in power, and refining the organizational structure. This is because social movements need resources in order to be effective because dissent and grievances alone will not generate social change. The theory emphasizes on the ability of movement's members to: acquire resources and to mobilize people towards accomplishing the movement's goals. This theory assumes that individuals are rational thus weigh the costs and benefits of movement participation and act only if benefits outweigh costs. It views social organizations as goal-oriented, but organization is more important than resource because a resource is simply a means to the end. The theory relates to this study because community based organization need the interactions and relations between Community Based Organizations and other organizations, businesses, governments, private sector, local communities and well-wishers; and for the efficiency of a community based water project, different types of resources are required, effective resource mobilization strategies and involvement of the local communities contributions are key issues that can influence successful completion of community based water projects in Kakamega County.

Conceptual framework

Resource mobilization
- Financial mobilization
- Human resource/skill mobilization
- Material contributions
- Sourcing for aid/donations

→

Sustainability of community based water projects
- Constant supply of water to clients
- Effective maintenance of water projects
- Adherence to project quality &standards
- Completion within stipulated time & costs

Independent Variable **Dependent Variable**

Figure 1: Conceptual Framework

Source: Author (2019)

Empirical review of related literature

Resource mobilization and Sustainability of community water projects.

First and foremost, according to Mala (2009) in Switzerland for instance, the first major strategic decision that NGOs make in soliciting for resources is to focus on human resources, material resources or financial resources. Since NGOs are usually dependent on external funding, the mobilization of financial resources tends to dominate but mobilizing volunteer and community resources is also a strategy that keeps an NGO close to its community-based roots. In mobilizing financial resources, an organization faces two immediate decisions namely: the organization to generate its own financial resources which leaves it in greater control and the threat to autonomy is reduced. Having autonomy also means less vulnerability to outsiders, less sensitivity, and the ability to replace critical resources because the organization can decide where to put the surplus it produces. Sources of resources for CBOs include members' contributions, loans from financial institutions, selling assets, volunteering of individual skills, expertise, gifts and talents; members' donation of natural resources such as land, water and minerals among others (Edwar and Hulm, 2007).

But according to Cole (2009) the other relatively unexplored area of source of resource mobilization is for Non-Governmental Organizations to actively pursue non-financial resources. Non-monetary contributions such as volunteer work from Community Based Organizations and linkages with other organizations should be explored and fully utilized. Often these options receive little attention in resource mobilization because they do not increase the organization's income.

According to Norton (2006) effectively mobilizing local resources requires creativity, persistence and flexibility while Schwartz (2010) identified various techniques that were employed in Nepal to avail the required resources. These include: holding regular communication meetings with representatives of local government, businesses, institutions, other NGOs, media and other social leaders or by attending their meetings and informing them about the CBO's activities and objectives. Thompson (2010) added that it is important to send regular project updates to these stakeholders and invite them to visit the office, project site, events, website and its stakeholders in order to see the impact of the CBOs work. The more familiar they are with the work of the CBOs, the more likely they are to support the organization's efforts when asked.

Further, Cusworth and Franks (2006) recommended various sources of resource such as requests for funds and solicited gifts, project proposal, correspondences/E-mails, direct contacts through meetings and visits. They further noted that, special events days such organization of research days, conferences, evening dinners, voluntary contributions with new members, CBOs' friends, and sponsors. Akumu (2011) studying the contribution of NGOs to

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the development income generating activities in Kisumu Municipality noted that there is need for the organization or group to mobilize local resources, and coordinate contributions from different sources. Organizations should develop plans to implement, monitor, and evaluate efforts of their work. Mulwa (2012) added that there is need for current staff and members to be trained, hire or recruit additional staff, or find partner organizations whose areas of expertise complement that of the organization. Thus, regardless of local circumstances, if the local community values the work being done; it will find ways to support it. The most important thing is to recognize that there are many ways to sustain and improve the work without large financial contributions. The organization's future ultimately lies in the local community, and depends on the ability to develop creative ways of communicating with for the community to support the services that are provided.

Dollins (2006) noted that financial resources are probably the most sought after local contribution, as they provide the ability to purchase a variety of goods and services that may not be otherwise available. Depending on the source, financial resources may be targeted to specific expenses or be used at the NGO or CBO's discretion. Financial resources can thus be raised from local citizens, businesses, local authorities, or others in a variety of forms and through many means, including: donations of cash grants from local authorities or other community organizations.

More so, according to Mungolia (2009) the local governments can be a valuable source of financial and non-financial support for organizations' activities. In addition to direct funding, countless NGOs/LCIs work with their local governments to receive free office and activity space, coverage of their utility bills, technical and expert advice, support in obtaining permits for reconstruction projects, and use of vehicles and equipment.

Further, Haysom (2006) carried out a study of the sustainability of rural water supplies in 38 villages in Tanzania on local financing and cost recovery. The study established a direct correlation between local contributions and project functionality. Whereas some communities had established water saving accounts in which communities deposited local contributions for operation and maintenance others did not. The study found that over 85% of projects in which communities deposited local contributions into a water account were regularly operating and repairing their water systems. However none of the communities with a failed system had a water account. This is indicated that of lack of local contribution of funds led to system failure. This underscores the importance of the role played by funds contributed by the community in the sustenance of community projects.

Harvey and Reed (2007) also conducted a literature review on studies of community water projects in Ghana, Kenya, Uganda and Zambia. The findings of the study were contrary to the popularly held view that community principle encouraged project beneficiaries to own and take responsibility for ongoing project operation and maintenance which leads to project sustainability. Contrary the study found that community management did not automatically lead to willingness to manage or finance water supply over a prolonged period of time as facilities fell into disrepair soon after installation. Isham and Kahkonen (2009) and Khwaja (2004) studies confirmed that when community mobilized resources projects performed well but Khwaja (2004) found that community mobilization is only valuable for nontechnical aspects of the projects. However none of these studies addressed the influence of participation in resource mobilization on sustainability of community water projects.

Locally, an empirical study relating community resource mobilization and sustainability of community water was carried out by Okungu (2008) in Kisii County in Kenya. The study examined the influence of community driven projects, participatory appraisal and resource mobilization on sustainability of donor funded projects. The study found that community participation in donor funded projects was high during implementation but waned in the post project period. That notwithstanding the study failed to find the effect of failure of community resource contribution on project sustainability.

METHODOLOGY

In this study, explanatory survey research design was employed since this design is suitable for exploring associations that are conducted in order to explain any behaviour or reactions of people to a given phenomenon in the society; Peshkin (1990). The study targeted 474 respondents comprising of mainly the chairpersons, few secretaries and treasurers plus selected project officers of 230 registered community water projects (registered community boreholes) in Kakamega County, Kenya. Primary data was collected by means of self-administered structured questionnaires. All collected data were coded, cleaned, tabulated and analyzed using descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences, version 24.

FINDINGS

Descriptive statistics

Descriptive statistics are summations of responses on the independent variables (resource mobilization, monitoring and evaluation, community participation, capacity building). The statements were based on likert scale where; 1. strongly disagree, 2. disagree, 3. uncertain, 4. agree, 5. strongly agree. The results in tables were frequencies, their corresponding percentages in brackets, means and standard deviations plus a grand mean that gives an average of responses on the particular variable in the table.

Resource Mobilization and sustainability of community water projects

This assessed the objective of the study, that is, the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya. The respondents were asked five questions based on liker scale; that is, (i) There are finance mobilization activities to raise finances of community water projects; (ii) The management team sources for technical personnel to maintain community water projects (iii) The management mobilizes for material resources from the community to support community water projects (iv) The management and local leadership mobilizes for both material and financial aid and donations from well-wishers, donors to aid community water projects and (v) Generally resource mobilization activities influence sustainability of community water projects. The responses are summated in table 1 which showed each statement, the corresponding frequencies and percentages plus the summated responses mean and standard deviation.

Table 1: Descriptive statistics: Resource Mobilization

Statement	5	4	3	2	1	mean	Std.dev
1.There are finance mobilization activities to raise finances of community water projects	17(13.0)	69(52.6)	23(17.6)	12(9.2)	10(7.6)	3.54	.0876
2. The management team sources for technical personnel to maintain community water projects	16(12.2)	58(44.3)	17(13.0)	27(20.6)	13(9.9)	3.28	0.811
3.The management mobilizes	18(13.7)	54(41.3)	18(13.7)	30(22.9)	11(8.4)	3.29	0.906

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for material resources from the community to support community water projects							
4.The management and local leadership mobilizes for both material and financial aid and donations from well-wishers, donors to aid community water projects	17(13.0)	68(51.9)	23(17.6)	13(9.9)	10(7.6)	3.53	0.884
5.Generally resource mobilization activities influence sustainability of community water projects	21(16.0)	71(54.2)	17(13.0)	15(11.5)	7(5.3)	3.64	0.953
Valid N (listwise) 131							
Grand mean = 3.456							

From table 1, 52.5 % and 13.0% of respondents agreed and strongly agreed that there were finance mobilization activities to raise finances of community water projects. This implied that most official of community water projects were engaged resource mobilization strategies to ensure that the community water projects gat both financial and non-financial resources so as to make them sustainable. Secondly, there were mixed responses about the management team sourcing for technical personnel to maintain community water projects. That is 44.3% agreed, 20.6% disagreed to this statement, implying that there are certain community water projects in Kakamega County whose officials do not source for technical personnel, thus could impact negatively on sustainability of community water projects.

More, so, 41.3% agreed while 22.5% disagreed that the management mobilizes for material resources from the community to support community water projects. This implied that possibly management that did not properly engage local communities in community water projects will find it hard to mobilize for material resources from the community to support community water projects. However, most respondents agreed (51.9%) and strongly agreed (13.0%) that the management and local leadership mobilizes for both material and financial aid and donations from well-wishers, donors to aid community water projects. this implies that most community water officials go for financial aid and donations from well-wishers and donors to assist in sustainable running of community water project especially in case where resource mobilization from the local community does not bear much fruit.

In summary most respondents agreed (54.2%) and strongly agreed (16.0%) that generally, resource mobilization activities influence sustainability of community water projects. This is supported by the grand mean of 3.456 rounded to 4 which correspondents to agree in the likert scale used to measure resource mobilization variable. This summarily means that most respondents support use of resource mobilization as a viable strategy to foster sustainability of community water projects. This is supported by Norton (2006) who asserted that mobilization of local community resources require persistence and flexibility so as to attract the local community in supporting community projects.

Inferential statistics

The direct influence of resource mobilization on sustainability of community water projects

This tested the direct influence of resource mobilization on sustainability of community water

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projects in Kakamega County, Kenya. The results were presented in table 2.

The model summary in table 2 showed that $R^2 = 0.526$ which implied that 52.6% of variation in sustainability of community water projects in Kakamega County was explained by resource mobilization while other confounding factors not in the study model accounts for 47.4% variation in sustainability of community water projects in Kakamega County, Kenya. Coefficient analysis also showed that there was a positive significant effect of resource mobilization on sustainability of community water projects in Kakamega County; (β= 0.716 (0.060); at $p<.01$. The results therefore indicated that a single increase in resource mobilization activities in community water projects will lead to 0.716 unit improvement in sustainability of community water projects in kakamega County, Kenya. Therefore the linear regression model was;

$y= 1.311+0.716X_1$

where;

y was the sustainability of community water projects in Kakamega County.

X_1 was resource mobilization

Table 2: Direct influence of resource mobilization on sustainability of community water projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change
1	.725[a]	.526	.522	.72818	.526	142.972	1	129	.000

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.811	1	75.811	142.972	.000[a]
	Residual	68.402	129	.530		
	Total	144.212	130			

Coefficients[a]

Model		Unstandardized Coefficients: B	Std. Error	Standardized Coefficients: Beta	t	Sig.
1	(Constant)	1.311	.204		6.441	.000
	Resource Mobilization	.716	.060	.725	11.957	.000

a. Dependent Variable: Sustainability of Community water Projects

Hypothesis Testing

Hypothesis one (H_{01}) stated that resource mobilization does not significantly influence sustainability of community water projects in Kakamega County. The results showed that there exists a positive significant effect of resource mobilization on sustainability of community water projects in Kakamega County (β= 0.213(0.062), at $p<.01$. **Hypothesis one was thus rejected.** The results therefore indicated that a single increase in resource mobilization activities in community water projects would lead to 0.213 unit improvement in sustainability of community water projects in Kakamega County, Kenya.

The results are supported by Cusworth and Franks (2006) whose study recommended various sources of resource such as requests for funds and solicited gifts, project proposal, correspondences/E-mails, direct contacts through meetings and visits. They further noted that, special events days such organization of research days, conferences, evening dinners, voluntary contributions with new members, CBOs' friends, and sponsors. Further, Akumu (2011) while studying the contribution of NGOs to the development income generating activities in Kisumu Municipality also found that there is need for the organization or group to mobilize local resources, and coordinate contributions from different sources. Organizations should develop plans to implement, monitor, and evaluate efforts of their work.

SUMMARY

The objective of this study was to investigate determinants of sustainability of community water projects in Kakamega County, Kenya. The study tested research hypotheses, that is; (i)$\mathbf{H_{01}}$**:** Resource mobilization does not significantly influence sustainability of community water projects in Kakamega County

Study **hypothesis one** stated that resource mobilization does not significantly influence sustainability of community water projects in Kakamega County. Descriptive statistics summarily indicated that most respondents agreed (54.2%) and strongly agreed (16.0%) that generally, resource mobilization activities influence sustainability of community water projects. This is supported by the grand mean of 3.456 rounded to 4 which correspondents to agree in the Likert scale used to measure resource mobilization variable. This summarily means that most respondents support use of resource mobilization as a viable strategy to foster sustainability of community water projects. This was supported by Norton (2006) who asserted that mobilization of local community resources require persistence and flexibility so as to attract the local community in supporting community projects.

CONCLUSIONS

The study concluded that resource mobilization significantly influenced sustainability of community water projects in Kakamega County, Kenya; which implied that community resource mobilization skills really facilitates efficient and effective running of community water projects.

RECOMMENDATIONS

Community water project officers must acquire relevant resource mobilization skills necessary to attract both financial and non-financial resources form within or without the local community so as to guarantee sustainability of community water projects.

Areas for further research

First, a similar study can be done in purely donor funded community water projects so as to compare the results.

Secondly, a longitudinal study can be done on community water projects in any county in Kenya that have existed for more than ten years so as to identify total quality management factors that accounts for their sustainability.

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