

Research Paper

Community Engagement in the Planning Phase of Community Projects Sustainability in Kenya

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Abstract

This study determined the effect of community engagement in the planning phase of community projects sustainability in Kenya. Participatory development theory, positivist philosophy and descriptive research design guided the study with randomly selection of 200 workers who filled the questionnaire. Results from descriptive statistics and inferential analysis, revealed that, community has ample opportunities to provide inputs for planning of project. Community engagement in the planning phase had positive significant influence on project sustainability. The study recommends on implementation of structured mechanisms for community involvement in projects. Engagement strategies throughout the implementation phase and transparency are also recommend to foster effectiveness during monitoring and evaluation of community development projects. The critical role of leadership in facilitating effective community involvement to improve engagement and project sustainability is recommended for future study.

Keywords: Community Engagement; Project Phases; Projects Sustainability; Project feedback.

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1. Introduction

Community engagement in project development has indeed become increasingly recognized as fundamental to fostering sustainable development globally. According to [Liang & Wang's \(2019\)](#) research, projects with substantial community involvement have a far greater success rate and can see an average 30% improvement in project sustainability over those with less community involvement. According to [Zahari et al. \(2021\)](#), community-driven development initiatives in Brazil and Colombia have produced outstanding outcomes. For example, in Brazil, over 70% of eligible residents have participated in participatory budgeting programs in towns like Porto Alegre, directly influencing over 20% of the municipal budget ([Dahal et al., 2019](#)). Even yet, there are still issues, namely with making sure the community is fully involved in all stages of the project. Communities frequently contribute significantly to the planning stage, but throughout the implementation and monitoring stages, their engagement typically wanes, creating gaps in the sustainability of the project and in the sense of community ownership ([Aga et al., 2018](#)).

African countries have recognized the pivotal role of community engagement in driving sustainable development. Community engagement, according to [Di Maddaloni & Davis \(2018\)](#), is the cooperative participation of community people in processes of decision-making and execution that have an impact on their lives. It encourages participatory government and gives people the power to direct their own personal growth. According to [Amin et al. \(2020\)](#), community participation refers to the exchange of ideas and responsibilities between the community and governmental or organizational authorities. In this study, community engagement refers to the active involvement of community members and governing bodies in development projects thus impact community project sustainability. In this view of context, community project sustainability is defined as sustained services and or benefits from implemented projects delivered among community members.

Community-based projects in Egypt, such as the Aswan High Dam Project, have shown how important it is to include local people in major infrastructure projects because it may create a feeling of ownership and strengthen social cohesion the project's sustainability and success ([Aguilar et al., 2021](#)). Similar to this, in South Africa, participatory methods have proven helpful in tackling issues like rural development and water resource management. Programs like the Community Works Program give marginalized communities the chance to participate in local development initiatives ([Boiral et al., 2019](#)). According to [Adekola et al. \(2020\)](#), 70% of communities included in these initiatives reported having better access to infrastructure and basic services, according to data from the South African Department of Rural Development and Land Reform. However, obstacles such a lack of institutional support and resources make it difficult to maintain community participation throughout projects in African countries ([Muniandy et al., 2020](#)).

In Kenya, community engagement has become increasingly recognized as pivotal for decentralized governance and sustainable development. In counties like Makueni, where participatory planning is emphasized, statistics reveal a significant impact. Over 80% of locals believe that their opinions are heard when local development initiatives are being decided, according to [Yusuf et al., \(2020\)](#). According to [Kwamboka & Deya \(2022\)](#) there has been a demonstrable commitment to addressing local needs as the Participatory Budgeting Program has seen about 70% of money allotted go toward community-driven activities. Nevertheless, obstacles like infrastructure resources, accountability mechanism, communicating goals barrier with community engagement, poor planning and inadequate policy alignment to mention few, are still exist despite these encouraging developments, namely with regard to the extent of community involvement throughout project stages ([Angelstam et al., 2017](#)). Although community discussions are frequently a part of planning, there are instances where implementation falls short of grassroots engagement, which causes a mismatch with community goals. Moreover, weak channels for meaningful community feedback are often absent from monitoring and evaluation phases, which makes it more difficult to immediately address emergent concerns ([Munene & Severina., 2020](#)). Against this backdrop, this study sought to determine the effect of community engagement in the planning phase on community projects sustainability in Kenya with a focus on Makueni County.

In Makueni County, which has significance as a representative region within the context of County Governments in Kenya. The community engagement in development projects faced significant challenges that hindered their long-term sustainability. Despite recognition of its importance, there was a disconnect between the community and various project phases, leading to ineffective participation and decision-

making processes. This lack of meaningful involvement throughout the planning, implementation, and evaluation stages undermined the ability to adequately address local needs and sustain project outcomes. Community involvement in development initiatives in Kenya's Makueni County is beset by serious obstacles that jeopardize their long-term viability. Even if its significance is acknowledged, there is a gap between the project stages and the community, which results in inefficient involvement and decision-making procedures. The capacity to effectively address local needs and maintain project outcomes is compromised by this lack of meaningful engagement during the planning, implementation, and assessment phases (Kwamboka & Deya, 2022).

There is still a research gap concerning Kenyan county governments, despite the increasing body of literature on community participation and project sustainability. There is limited research on the dynamics within Kenyan county governments, despite studies like Bimha (2019) and Yusuf et al, (2020) exploring community participation and sustainability of development projects in neighboring countries like Nigeria and Eswatini, respectively. Furthermore, studies by Attuh & Kankam. (2024) and Hawkins & Wang (2012) have looked at the importance of community involvement in sustainable development initiatives, although they are not well suited to the Kenyan setting. Additionally, Elias (2018) offered perspectives on attaining project sustainability by community involvement; however, his attention was directed towards donor-funded initiatives in Tanzania. Therefore, there is a significant gap in the literature regarding the assessment of the effect of community engagement at different project phases on community projects sustainability in Kenya especially in Makueni County. This study seeks to fill this gap by providing a comprehensive examination of community engagement's effects on project sustainability in the unique context of Kenyan County Governments, with a particular focus on Makueni County.

According to Musembi (2022), the issue is made worse by the dominant culture of top-down methods to development, which frequently marginalizes or ignores community opinions in favor of formal processes. Development efforts in Makueni County might not be in line with community interests as a consequence, resources might be misallocated, and projects would not have the desired effect. In the absence of aggressive steps to close this gap, the county runs the danger of continuing a pattern of unsuccessful development initiatives and eroding public confidence in political institutions. The mismatch between project stages and community participation might worsen socioeconomic disparities and impede Makueni County's efforts to achieve sustainable development objectives if it is not addressed. Development initiatives may cause communities to grow more and more disenchanting, which might result in opposition, indifference, or even violence. Inadequate cultivation of authentic cooperation and involvement may hinder the county's capacity to accomplish development results that are equitable, inclusive, and sustainable for its citizens.

However, the active participation of local communities in decision-making processes pertaining to development projects (Sambuo, 2021). is emphasized by participatory development theory's core tenet is that initiatives in development are more lasting and successful when they engage the target population. According to Marzo et al. (2023), this approach promotes transferring authority from outside authorities or specialists to local stakeholders, acknowledging their needs, expertise, and goals as essential to the development process. A variety of strategies and tactics are included in participatory approaches, such as community-based participatory research (CBPR), participatory learning and action (PLA), and participatory rural appraisal. These strategies ensure that programs are locally owned and appropriate for the particular environment by promoting meaningful communication, information sharing, and cooperation between communities, development professionals, and lawmakers (Obar et al., 2017).

Moreover, extensive research on community engagement has been conducted globally, including studies by Elias (2018) in Tanzania, Jelili et al.,(2020) in Nigeria, Bimha (2019) in Eswatini, Di Maddaloni & Davis (2018) in the UK, and Dahal et al. (2019) in Nepal. However, these studies vary in sampling methods and research approaches. Despite considerable attention to this topic, the assessment of community engagement's impact on project sustainability in Kenyan County Governments, particularly in Makueni County, remains largely unexplored. This study aimed to bridge this knowledge gap by thoroughly assessing the effect of community engagement at different project phases on community projects sustainability in Kenya with focus on Makueni County.

2. Methods

Cross-section research design was used to systematically assess the impact of community engagement on project sustainability in Makueni County, Kenya, providing empirical evidence through statistical analysis. This design focused on socio and economic data to be collected at once as it is a convenient design for analyzing variable data collected at one given point in time across a sample population or a pre-defined subset (Saunders et al., 2017). A descriptive statistic were accurately collected regarding community involvement strategies and their effects on project sustainability. The study focused on Makueni County due to its challenges with community engagement in development projects among other Counties in Kenya, which affected long-term sustainability. The target population included 408 workers from various departments, with a sample size of 202 officials selected to ensure representativeness and robust findings. The formula by Yamane (1967) was used to determine the sample size $n = N / (1 + N \cdot e^2) = 408 / (1 + 408 \cdot (0.05)^2) = 202$. Where n is the sample size, N =population size, and e represents the level of accuracy equal to 5%. Primary data was gathered through a closed-ended questionnaire using a five-point Likert scale, while secondary data were obtained through document review, which involved examining existing records, reports, and other relevant sources to supplement the primary data collected. Data analysis utilized descriptive and inferential statistics including Pearson correlation and multiple regression analysis to explore the relationship between community engagement and project sustainability. The validity of the data collected in this study were assessed using Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity (Gomes et al., 2018) and found that the measure of Sampling Adequacy is 0.726, indicating a moderate to good level of sampling adequacy. Cronbach's alpha coefficient was utilized as a measure of internal consistency to assess the reliability of the data (Saunders et al., 2017) and all variables found with threshold above 0.70.

Model, analysis and measurement of data

The impact of community engagement from each project phases (independent variables) influence on project sustainability (dependent variable) was analyzed using multiple linear regression model (Gujarati, 2003; Sambuo et al., 2021). The, selection of the model sufficed from optimization measurement of variables as continuous data as adopted from Sambuo et al., (2021). The selected dependent variable Project Sustainability(PS) was defined as outcome longevity obtained by a project measured by duration of time. Other independent variables; Community Engagement in the Planning Phase (CEPP) measured by numbers of frequency participated in the planning; Community Engagement in the Implementation Phase (CEIP) measured by frequencies of feedback on project progress; Community Engagement in the Monitoring and Evaluation Phase (CEME) considered frequency participation in project evaluations. The linear regression model was specified in equation (i):

$$PS = \beta_0 + \beta_1 CEPP + \beta_2 CEIP + \beta_3 CEME + \varepsilon \dots\dots\dots (i)$$

Where β_0 - Regression coefficient / constant/ Y-intercept; $\beta_1, \beta_2, \beta_3$ are the parameters of the regression equation; ε - Error term.

3. Results and Discussions

Out of the 202 sent, 200 were returned and considered valid for detailed assessment, yielding a notable response rate of 99%. The study determined the effect of community engagement in the planning phase on community projects sustainability. The findings are shown in the Table 1.

Table 1: Community Engagement in the Planning Phase

Statements	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
The community has opportunities to provide input during project planning.	13	6.5	20	10	0	0	130	65	37	18.5
The project plan incorporates community feedback.	0	0	10	5	46	23	116	58	28	14
Community members are actively engaged in setting project goals.	3	1.5	22	11	78	39	64	32	33	16.5
The planning phase includes diverse community perspectives.	12	6	45	22.5	32	16	84	42	27	13.5
The project plan addresses key community needs.	4	2	19	9.5	42	21	92	46	43	21.5
Communication about feedback incorporation is clear.	11	5.5	58	29	26	13	82	41	23	11.5
Community engagement in planning improves project success.	36	18	51	25.5	16	8	81	40.5	16	8
Planning meetings are well-publicized and accessible.	0	0	28	14	28	14	52	26	92	46
Community input refines the project's scope.	0	0	32	16	44	22	82	41	42	21
Planning phase engagement impacts project sustainability.	0	0	20	10	40	20	80	40	60	30

KEY: SD-Strongly Disagree; D- Disagree; N-Neutral; A-Agree; SA-Strongly Agree

Source: Field Data (2024).

The study found that 65% of respondents agreed that the community has opportunities to provide input during project planning, with 18.5% strongly agreeing. There was no neutral response, while 6.5% disagreed and 10% strongly disagreed. This strong agreement indicates that Makueni County effectively provides avenues for community input in project planning. This inclusive approach likely enhances project relevance and community support, which can contribute to improved project sustainability and effectiveness.

Regarding the essence of project plan in incorporating community feedback. Findings revealed that 58% of respondents agreed, and 14% strongly agreed. However, 23% were neutral, and 5% disagreed. The positive feedback suggests that Makueni County generally integrates community feedback into project plans. This practice is critical for ensuring that projects align with community needs and preferences, thereby enhancing their sustainability and success.

With the concern for community members being actively engaged in setting project goals. Findings shows that 32% of respondents agreed and 16.5% strongly agreed. Conversely, 39% were neutral, 11% disagreed, and 1.5% strongly disagreed. This suggests that while there is some degree of engagement, Makueni County could benefit from enhancing community involvement in goal-setting. Greater involvement can help ensure that project goals are more closely aligned with community expectations, potentially increasing project effectiveness.

On checking inclusion of diverse perspectives in the planning phase by Makueni County, it was found that 42% of respondents agreed that the planning phase includes diverse community perspectives, with 13.5% strongly agreeing. Meanwhile, 22.5% were neutral, and 28.5% either disagreed or strongly disagreed. The findings suggest that Makueni County makes efforts to include diverse perspectives in the planning phase, but there is room for improvement. Ensuring that a wider range of voices is heard can enhance project comprehensiveness and community support, which are crucial for long-term sustainability.

The findings result on if the project plan addresses key community needs, about 67.5% agreed the opinion that community participating on project planning prompt community needs to be addressed. In contrast, 21% were neutral, and 12.5% disagreed or strongly disagreed. The results indicate that Makueni County's projects are generally aligned with key community needs. Addressing these needs effectively is important for project success and sustainability. Continued focus on community needs can further enhance project impact.

On communication about feedback incorporation, about 52.5% were of the opinion and agreed its clear. However, 29% were neutral, 13% disagreed, and 5.5% strongly disagreed. These responses suggest that while there is some clarity in communication about feedback incorporation, there is potential for improvement. Enhancing transparency in how community feedback is used can build trust and improve community engagement and project outcomes.

The study revealed that 40.5% of respondents agreed that community engagement in planning improves project success, with 8% strongly agreeing. Meanwhile, 25.5% disagreed, 18% strongly disagreed, and 8% were neutral. The findings indicate a general belief that community engagement contributes to project success. Strengthening engagement practices can further improve project outcomes and sustainability by ensuring that community input is effectively utilized. The study found that 46% of respondents agreed that planning meetings are well-publicized and accessible, with 14% strongly agreeing. Conversely, 14% were neutral, and 14% disagreed or strongly disagreed. The results suggest that Makueni County has made efforts to publicize and make planning meetings accessible. Ensuring broader access and better communication can enhance community participation and project success.

Findings depicted that 41% of respondents agreed that community input refines the project’s scope, with 21% strongly agreeing. In contrast, 22% were neutral, and 16% disagreed or strongly disagreed. The positive feedback indicates that community input plays a significant role in refining project scope. This practice helps align projects more closely with community needs and expectations, contributing to better project outcomes. The study also revealed that 40% of respondents agreed that engagement in the planning phase impacts project sustainability, with 30% strongly agreeing. However, 20% were neutral, and 10% disagreed. The results suggest a strong belief that engagement during the planning phase is crucial for project sustainability. Enhancing engagement efforts can further support long-term project success and community benefit.

In support of the findings from descriptive statistics results, the correlation analysis was conducted to examine the association between community engagement in projects phases and the sustainability of community projects in Makueni County results provided in Table 2. The Pearson correlation coefficient between the one independent variables and dependent variables is above 0.779 indicating a strong positive relationship. With coefficient of determination R² being above 60%, further details were computed and presented in Table 4. This suggests that higher levels of community engagement in the planning phase are strongly associated with increased project sustainability and more that 60% of the Project Sustainability is influenced by community participation in project phases. The significance value (Sig. 2-tailed) is 0.000, which is less than 0.05, confirming that the correlation is statistically significant.

Table 2: Correlations results between Community Engagement (CE) in the Planning Phase and Project Sustainability

Variables		CE in the Planning Phase	CE in the Implementation Phase	CE in the M and E Phase	Project Sustainability
CE in the Planning	Pearson Correlation	1			
	Sig. (2-tailed)				
CE in the Implementation	Pearson Correlation	.498	1		
	Sig. (2-tailed)	.000			
CE in the M and E	Pearson Correlation	.166	.766	1	
	Sig. (2-tailed)	.019	.000		
Project Sustainability	Pearson Correlation	.811	.786	.779	1
	Sig. (2-tailed)	.000	.000	.000	

Source: Field Data (2024).

The ANOVA results on table 3 shows that the regression model is statistically significant in explaining the relationship between community engagement (CE) in the planning, implementation, monitoring and evaluation phases, and project sustainability. The F-value of 378.181 is notably large, indicating that the model has a strong explanatory power. The p-value (Sig.) of 0.000 confirms that the overall model is significant at the 1% level, meaning there is less than a 0.1% probability that the relationship occurred by chance. The regression sum of squares (3191.864) is significantly larger than the residual sum of squares (551.416), showing that the model accounts for a substantial portion of the total variability in project sustainability.

Table 3. Analysis of Variance showing explanatory power between community engagement (CE) phases and project sustainability

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3191.864	3	1063.955	378.181	0.000
Residual	551.416	196	2.813		
Total	3743.280	199			

Source: Field Data (2024).

On examine the goodness fit of the regression model in Table 4, results of the R Square value was found to be 0.853 which is above 0.8 threshold level. Implied that the explanatory power of the model explained the dependent variable, project sustainability by 85.3%. This means a model has a good fit in explaining the significance influence of independent variables on dependent variables. However, it is estimated that 14.7% of non-inclusion of independent variables explained the dependent variables. The adjusted R Square value of 0.850, which is close to the R Square value, confirms that the model is robust in predicting the dependent variable by 85%.

The coefficient of community engagement in the planning phase ($B = 0.385$, $p = 0.000$) was positive and significant. Indicating every unit change in community engagement in the planning phase can contribute positively to project sustainability by 0.38, *ceteris paribus*. Implied that, the engagement of community is paramount to project sustainability.

The coefficient of engagement in the implementation phase ($B = 0.349$, $p = 0.000$) was also positive and significant. This indicated that to every unit change in the implementation phase, there is a change in project sustainability by 0.349, *ceteris paribus*. By implications, if efforts are made on inclusion of community to participate on project implementation, could lead to project sustainability and vice versa it true.

Lastly, the coefficient of engagement in the monitoring and evaluation phase ($B = 0.109$, $p = 0.025$) was also significant but positive. The result is such that, every unit change in the monitoring and evaluation phase leads to a change of 0.1 project sustainability, *ceteris paribus*. Engaging community on monitoring and evaluation of projects increase slightly the margin of sustainability.

Table 4: Regression analysis results of the influence of community engagement (CE) on project sustainability

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
Dependent: Project Sustainability					
(Constant)	1.233	.808		1.905	.000
CE in the Planning Phase	.385	.024	.555	1.198	.000
CE in the Implementation Phase	.349	.035	.518	9.849	.000
CE in the M and E Phase	.109	.042	.010	.222	.025

Source: Field Data (2024).

Discussions of the findings

The study revealed that most respondents felt the community has ample opportunities to provide input during project planning and that their feedback is incorporated into the project plan. This aligns with participatory development theory, which posits that involving community members in the planning phase enhances the relevance and effectiveness of projects by incorporating their needs and perspectives. [Ngugi \(2018\)](#) supports this, noting that such engagement fosters ownership and commitment, leading to more enduring outcomes. Nevertheless, [Kwamboka & Deya \(2022\)](#) argue that despite these opportunities, the actual integration of feedback can be inconsistent, potentially hindering the overall effectiveness of community involvement in achieving project goals. This suggests a lesson that, frequent and consistent provision of feedback of project implementation is appropriate to match with a framework for successful

community engagement. This will guarantee that community involvement can result in noticeable changes and boosts project performance in Makueni County.

The findings revealed that community members are actively engaged in setting project goals. This aligns with Migwi & Atikiya (2017) who suggest that involving the community in goal-setting improves alignment with local needs and enhances the likelihood of project success by fostering a collaborative approach. The involvement of Makueni County in goal-setting is having a favorable effect on project results. Participation ensures that the project's goals closely align with the community's interests and needs. Thus, the project's acceptability and efficacy are significantly increased.

Additionally, the study found that communication about feedback incorporation is generally clear. This contrasts with Zebardast et al., (2021), who highlighted that communication gaps often exist between project teams and the community, leading to misunderstandings and reduced effectiveness in integrating feedback. The clarity of feedback communication indicates a more robust link between project teams and the community, which is positive for Makueni County. To further improve project outcomes, the county should make sure that this clarity is upheld and continually enhanced. It should also take care of any possible communication problems to prevent miscommunication and make sure that suggestions are properly included into project plans.

The majority of respondents believed that community engagement in planning enhances project success and that planning meetings are well-publicized and accessible. This finding aligns with Elias (2018), who demonstrated that effective communication and the accessibility of planning meetings significantly boost community participation and project success by ensuring all relevant stakeholders are informed and involved. This suggests that community involvement is being positively impacted by the well-publicized and easily accessible style of planning sessions for Makueni County. This strategy encourages greater participation and more transparent communication, which increases the likelihood that initiatives will be successful.

Conversely, the study found that community input refines the project's scope and that engagement during the planning phase impacts project sustainability. However, Anthony (2023) contends that despite community input, project scopes often remain inflexible and fail to adapt effectively to community needs, potentially undermining project sustainability. This implies that, although community involvement in planning is advantageous, Makueni County may need to improve the flexibility of project scopes in order to effectively incorporate community feedback. Resolving this issue might ensure that projects continue to be responsive to the community's changing needs and priorities, which could enhance their sustainability.

The study showed that community engagement in the planning phase strongly correlates with project sustainability. This finding is supported by Kwamboka & Deya (2022), who observed that involving the community early in the planning process fosters a sense of ownership and ensures that projects are closely aligned with local needs and conditions. This implies that, in the case of Makueni County, actively involving the community early on increases their bond with the project and contributes to its long-term viability. Through early community buy-in and project alignment with local needs, the county can enhance project outcomes and guarantee that programs stay relevant and productive over time.

Conclusion

The study concluded that community engagement in the planning phase is crucial for enhancing the sustainability of community projects. Active involvement of community members in providing input, setting project goals, and ensuring that their needs are considered leads to projects that are more aligned with local expectations and priorities. This alignment fosters greater community support and ownership, which are essential for the long-term success of the projects. When community perspectives are integrated into the project plan, it not only improves the relevance of the project but also increases the likelihood of its continued support and success. The study recommends that county should implement structured mechanisms for community involvement during the planning phase. Specifically, the county should establish regular consultation forums and participatory workshops where community members can actively contribute to setting project goals and providing feedback on project plans. Additionally, Makueni County should ensure that the project plans reflect the diverse perspectives of all community segments, including marginalized groups. This approach will not only enhance the relevance and

effectiveness of the projects but also foster greater community buy-in and support, which is crucial for long-term sustainability.

Limitations

This study did not explore the pivotal role of leadership in facilitating effective community involvement. A further study on investigating the effects of various leadership philosophies on community involvement can provide important insights on encouraging significant engagement and conquering obstacles. In addition, comparative studies of community engagement models across various regions or sectors can illuminate best practices and innovative approaches, this area was beyond the scope of this study. Examining how technology, such as online platforms and mobile applications, may promote engagement is a viable way to boost involvement and communication.

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