

# Effect of Transparency on Performance of Water Projects in Kitui South Sub County, Kenya

Stephen Muthoka Ngala<sup>1</sup>, Dr. Jonathan Omuchesi<sup>2</sup>, Dr. Lilechi Melvine<sup>3</sup>

<sup>1</sup>A Postgraduate student Catholic university of East Africa.

<sup>2,3</sup>Senior Lecturers, Catholic university of East Africa-Kenya.

DOI: <https://doi.org/10.47772/IJRISS.2026.100700198>

Received: 13 July 2026; Accepted: 18 July 2026; Published: 27 July 2026

## ABSTRACT

The study examined the effect of transparency on performance of water projects in Kitui South Sub County, Kenya. Transparency has increasingly been recognized as a fundamental pillar of good governance and a key determinant of sustainable service delivery, particularly in community-based water projects, where access to information, openness in financial management and clarity in decision-making significantly influence project effectiveness and long-term sustainability. The study was anchored on Arnstein's Ladder of Citizen Participation Theory, which emphasizes meaningful citizen engagement and access to information as essential components of participatory governance. A mixed-methods approach based on a convergent parallel research design was employed, allowing for simultaneous collection and analysis of quantitative and qualitative data. The target population of 308 stakeholders involved in water project governance, including county water officials, water committee members, technical operators and community representatives. A sample size of 174 (10 interviews & 164 questionnaires) respondents, with questionnaires response rate of 162 out of 164 valid responses yielding a response rate of 98.8%. Data were collected using questionnaires and key informant interview guide. Analysis was done using descriptive and inferential statistics, for quantitative data while qualitative data were analyzed thematically. The findings revealed that transparency had a strong positive and statistically significant relationship with performance of water projects ( $r = 0.612$ ,  $p < 0.001$ ). Qualitative findings further indicated that openness in financial reporting, procurement procedures and project progress communication significantly enhanced accountability, strengthened community trust and reduced conflicts among stakeholders. The study concludes that transparency is a critical determinant of water projects performance and sustainability in Kenya's Kitui South Sub County. We recommend strengthening transparency mechanisms through mandatory public disclosure of financial records, institutionalized community accountability forums (barazas) and digitalization of water revenue tracking systems to enhance efficiency and trust in water governance.

**Keywords:** Water Governance, transparency, Community Participation, Project Performance

## INTRODUCTION

Globally, transparency has emerged as a central principle of public sector governance and sustainable development, particularly in the management of natural resources and community development projects. Within the framework of the Sustainable Development Goals (SDGs), transparency is considered essential for ensuring accountability, efficiency, and inclusiveness in public service delivery. In water governance, transparency facilitates open access to information on budgeting, procurement, implementation, and maintenance processes, thereby strengthening trust between service providers and beneficiaries (United Nations, 2015; World Bank, 2021). In community water projects, transparency enhances stakeholder confidence and encourages collective responsibility for resource management. When project information is openly shared, communities are more likely to support fee collection systems, protect infrastructure, and participate in maintenance activities, which improves sustainability and functionality (Transparency International, 2022).

In Africa, however, water service delivery continues to face persistent governance challenges, including corruption, financial mismanagement, and weak accountability systems (Osei-Tutu, & Adjei, 2022). These challenges have contributed to widespread inefficiencies and premature failure of rural water infrastructure. In response, development actors have increasingly promoted transparency-enhancing interventions such as public audits, open contracting systems, and participatory financial reporting to improve service delivery outcomes.

In Kenya, constitutional and policy reforms, particularly under the Constitution of Kenya (2010), emphasize transparency and access to information as fundamental governance principles. Despite these provisions, many county-level water projects still experience challenges related to unclear financial reporting, inadequate disclosure of procurement processes, and weak oversight mechanisms. In arid and semi-arid regions such as Kitui South Sub County, these challenges are particularly pronounced due to the high dependence on community-managed water systems and the scarcity of water resources.

### Statement of the Problem

Water projects are expected to operate under transparent governance systems that guarantee open access to information on budgeting, procurement, revenue collection and operational expenditures. Transparency is widely recognized as a core principle of good governance because it reduces information asymmetry between project managers and beneficiaries, strengthens accountability, and enhances trust in public service delivery systems (World Bank, 2021; United Nations, 2015). When transparency is effectively implemented, communities are more likely to participate in sustaining infrastructure, contributing user fees, and protecting shared resources, which ultimately improves project performance and sustainability (Transparency International, 2022).

Despite these expectations, the performance of water projects remains a persistent challenge globally, particularly in developing countries. Evidence indicates that approximately 30%–40% of rural water systems fail within a few years of implementation due to weak governance structures, corruption risks, and inadequate accountability mechanisms (World Bank, 2021). Limited transparency in financial management and procurement processes has been identified as a key driver of these failures, as it reduces public trust and weakens community willingness to support operation and maintenance systems (Transparency International, 2022).

In Kitui South Sub County, the situation is more critical due to the region's arid and semi-arid conditions, which make water a highly scarce and essential resource. Despite significant investments by the government and development partners in community water projects, concerns persist regarding lack of transparency in revenue collection, unclear maintenance expenditures, and limited disclosure of procurement decisions (Awuora, 2024). These issues have weakened community trust and reduced willingness to contribute to project sustainability efforts, thereby affecting overall performance of water systems in the area.

Although previous studies have examined governance, participation, and sustainability of water projects in Kenya and other developing countries, most of them have treated transparency as part of broader governance concepts rather than as an independent explanatory variable. Furthermore, limited empirical evidence exists on how transparency specifically influences the performance of water projects in arid and semi-arid regions such as Kitui South Sub County (Awuora, 2024; Abong & Wamalwa, 2025). This creates a clear contextual and conceptual gap that necessitates a focused investigation into the effect of transparency on performance of water projects in Kitui South Sub County, Kenya. Based on this, the study tested the following hypothesis;

H<sub>0</sub>: There is no significant effect of transparency on performance of water projects in Kitui South Sub County, Kenya

### THEORETICAL REVIEW

This study was anchored on Arnstein's Ladder of Citizen Participation Theory, developed by Sherry R. Arnstein (1969). The theory explained the varying levels through which citizens' participation in decision-making

processes affects public projects and governance outcomes. Arnstein conceptualized participation as an eight-rung ladder, categorized into three broad levels: non-participation, tokenism and citizen power (Arnstein, 1969).

At the lowest level of the ladder, non-participation which included manipulation and therapy citizens had little or no meaningful influence over decisions. In such contexts, information flow was limited and decision-making remained entirely in hands of project implementers or authorities. At the intermediate level, tokenism which includes informing, consultation and placation citizens received information or were consulted; however, they do not possess sufficient power to influence final decisions in a meaningful way. At the highest level, citizen power which include partnership, delegated power and citizen control communities possess real authority over decision-making processes and resource management (Arnstein, 1969).

Within the context of this study, transparency is conceptualized as a critical enabler of movement up the ladder of participation. It is assumed that when water project governance structures provide open access to financial records, procurement information and implementation updates, communities are better positioned to participate meaningfully in decision-making processes. Transparency therefore reduces information asymmetry between water management committees and community members, thereby strengthening accountability and improving governance outcomes (Gupta et al., 2021).

In water projects, the theory suggests that performance improves when beneficiaries are fully informed about how resources are mobilized, allocated and utilized. Transparent systems empower community members to monitor project activities, question irregularities and contribute to the maintenance and protection of infrastructure (Moriarty et al., 2021). This enhances ownership, reduces conflicts and increases willingness to support water services financially and socially.

However, the theory also implies that when transparency is weak or absent, participation remains at lower levels of the ladder, where communities are limited to being informed without influence or are completely excluded from decision-making processes. In such cases, information asymmetry persists, trust declines and water projects are more likely to experience inefficiencies, mismanagement, and reduced sustainability (Arnstein, 1969).

## Empirical literature

### Effect of Transparency on Performance of Water Projects

Transparency refers to the open sharing of information regarding project planning, budgeting, decision-making, and results with all stakeholders, while accountability entails mechanisms through which project managers, government officials, and implementing partners are answerable for the use of resources and achievement of project objectives (Organisation for Economic Co-operation and Development (OECD), (2021)). Empirical evidence suggests that transparency is a critical component of good governance and strongly influences sustainable development (Moriarty et al., 2021). When these governance principles are effectively implemented, communities can actively monitor activities, demand corrective actions when necessary and even participate in management decisions (Organisation for Economic Co-operation and Development (OECD), 2021). Such engagements reduce opportunities for mismanagement, enhance efficiency and strengthen sustainability of development projects (Abubakari, 2025; Mutanda & Nhamo, 2024).

Various studies across sub-Saharan Africa provide ample evidence of the positive effect of transparency in rural development (Awuora, 2024). In rural areas of Northern Ghana, water projects that routinely shared detailed financial reports, implementation schedules and progress updates with communities experienced higher functionality of water sources and reduced cases of fund embezzlement (Osei-Tutu & Adjei, 2022). By openly communicating how resources are allocated and spent, these projects fostered trust between community members and leaders, which in turn encouraged greater involvement in monitoring, maintenance and management of water infrastructure. In contrast, projects characterized by limited transparency often face community mistrust, lower

cooperation and early infrastructure failures, highlighting the critical role that openness plays in ensuring project effectiveness (Gupta et al., 2021).

Other studies reported that accountability mechanisms, such as citizen monitoring committees, grievance redress systems, participatory audits and regular reporting requirements, further enhance rural development project outcomes (Kamau et al., 2023). In Bangladesh, committees empowered to inspect budgets, assess performance and oversee repair schedules significantly improve service delivery and reduce downtime in rural water systems (Rahman & Sultana, 2023). Through these structures, beneficiaries are able to hold officials and contractors responsible for delays, mismanagement, or poor maintenance, thereby improving the sustainability and reliability of water infrastructure. According to Moriarty et al., (2021), transparent reporting increases donor confidence, which secures steady flow of technical support and funding, further strengthening project durability.

In Kenya, empirical research demonstrates similar impacts. Studies conducted in Nakuru and Garissa counties found that the inclusion of citizen oversight, open financial disclosure and regular reporting in rural development projects leads to significant improvements in project success, including timely maintenance and strengthened community ownership (Kamau *et al.*, 2023). When community members are given access to operational information and involved in decision-making, they can identify problems early, arrange repairs efficiently and ensure equitable water access, reduce conflicts and enhancing satisfaction among stakeholders.

Transparency is particularly important in semi-arid regions such as Kitui South Sub-County, where corruption, elite capture and misallocation of resources are common challenges. Projects lacking clear reporting channels or community oversight frequently experience diversion of funds, favoritism and neglect of infrastructure, resulting in lower service effectiveness (Mutanda & Nhamo, 2024). Incorporating governance features such as participatory audits, public meetings and digital tracking of water points ensures that both implementing agencies and beneficiaries are actively engaged in oversight (Abubakari, 2025; Osei-Tutu & Adjei, 2022; Rahman & Sultana, 2023; Kamau *et al.*, 2023).

Based on the literature reviewed, there is consistent evidence that transparency contributes to improved performance and sustainability of water projects through enhanced financial disclosure, community oversight, and participatory decision-making. However, most empirical studies have been conducted outside the study area, particularly in Ghana (Osei-Tutu & Adjei, 2022), Bangladesh (Rahman & Sultana, 2023), and at broader regional or policy levels (OECD, 2021; Moriarty et al., 2021), limiting the generalizability of their findings to the socio-economic and governance context of Kitui South Sub-County, Kenya. Although Kenyan studies (Kamau et al., 2023) have examined transparency-related practices, they largely focus on general project performance without specifically assessing how transparency influences the performance of community water projects in arid and semi-arid regions where governance challenges such as resource misallocation, elite capture, and weak accountability mechanisms are more pronounced.

## METHODOLOGY

This study adopted a mixed-methods research approach using a convergent parallel research design. This design enabled simultaneous collection of both quantitative and qualitative data, for a comprehensive understanding of the effect of transparency on performance of water projects in Kitui South Sub County, Kenya (Creswell & Plano Clark, 2018). The study targeted a population 308 stakeholders directly involved in the governance and management of water projects, including County Water Department officials, water project management committee members, technical operators, and community representatives (women, youth, and persons with disabilities). A sample size of 174 respondents was determined using Slovene's formula, selected using a combination of simple and stratified random sampling techniques, ensuring that all stakeholder categories were adequately and proportionately represented, with minimized selection bias and enhanced representativeness.

Data collection involved both primary quantitative and qualitative tools, using structured questionnaires designed with a five-point Likert scale, ranging from strongly disagree to strongly agree. The questionnaire captured respondents' perceptions on transparency practices (which included financial disclosure, procurement

openness and reporting mechanisms) as well as their perceived performance of water projects. Qualitative data were collected using Key Informant Interview (KII) guides administered to selected stakeholders with in-depth knowledge of water project governance. These included county water officials and experienced water committee members. The interviews provided detailed insights into transparency practices, governance challenges, accountability mechanisms and community perceptions of project performance.

## Data Analysis

The quantitative data collected through questionnaires were analyzed using descriptive statistics (frequencies, percentages, means and standard deviations), used to summarize respondents' characteristics and perceptions regarding transparency and project performance. Inferential statistics employed the Pearson Product-Moment Correlations to determine the relationship between transparency and performance of water projects. Qualitative data were analyzed using thematic analysis, transcribed, coded, and organized into themes that reflected patterns in respondents' views on transparency and water project governance. These were then integrated with quantitative results during interpretation to provide a comprehensive explanation of the findings.

## RESULTS

### Response Rate and Demographic Characteristics of Respondents

From a sample of 174, 10 participants were interviewed for qualitative data while 164 was used for quantitative data through questionnaires. From the 164 respondents who were given questionnaires, only 162 returned fully completed questionnaires, representing a response rate of 98.8%, which is considered highly adequate for statistical analysis and generalization of findings (Mugenda & Mugenda, 2014). Table1 shows a summary of results from the demographic characteristics of respondents.

**Table 1: Demographic Characteristics of Respondents**

| <b>Gender</b>                           | <b>Frequency</b> | <b>Percentage (%)</b> |
|-----------------------------------------|------------------|-----------------------|
| Male                                    | 98               | 60.5                  |
| Female                                  | 64               | 39.5                  |
| Total                                   | 162              | 100                   |
| <b>Age Bracket</b>                      | <b>Frequency</b> | <b>Percentage (%)</b> |
| 19–25 years                             | 34               | 21.0                  |
| 26–30 years                             | 48               | 29.6                  |
| 31–45 years                             | 56               | 34.6                  |
| 46 years and above                      | 24               | 14.8                  |
| Total                                   | 162              | 100                   |
| <b>Education Level</b>                  | <b>Frequency</b> | <b>Percentage (%)</b> |
| Certificate                             | 28               | 17.3                  |
| Diploma                                 | 54               | 33.3                  |
| Bachelor Degree                         | 58               | 35.8                  |
| Master Degree                           | 14               | 8.6                   |
| Other                                   | 8                | 4.9                   |
| Total                                   | 162              | 100                   |
| <b>Designation</b>                      | <b>Frequency</b> | <b>Percentage (%)</b> |
| County Water Department Officials       | 18               | 11.1                  |
| Human Resource and Administrative Staff | 24               | 14.8                  |
| Local Water Committee Members           | 52               | 32.1                  |
| Technical Operators                     | 36               | 22.2                  |
| Community Representatives               | 32               | 19.8                  |
| <b>Total</b>                            | <b>162</b>       | <b>100</b>            |



## Source: Primary Data (2026)

From Table 1, majority of the respondents (60.5%) were male compared to 39.5% females, suggesting that male dominance among stakeholders involved in water project governance and management. Regarding age, respondents aged 31–45 years constituted the largest proportion (34.6%), followed by those aged 26–30 years (29.6%), 19–25 years (21.0%), and 46 years and above (14.8%), suggesting that water project governance is largely driven by youth and middle aged economically active and productive members of the community, which diversity is important in enhancing decision-making, promoting community ownership, and improving the performance of water projects through the incorporation of varied experiences and energies. As for education level, Bachelor's degree (35.8%) and Diploma holders (33.3%) dominated the sample, while Certificate (17.3%) and Master's degree (8.6%) holders were few, though expected, suggesting that respondents were adequately educated to effectively respond and participate in governance, planning and management of water projects, reflecting inclusiveness in representation.

## Descriptive Statistics on Transparency in Water Projects, Kitui South Sub-County

Respondents rated the level of transparency in water projects using seven items in the questionnaire, based on a five-point Likert scale. Their responses are analyzed with frequencies, means and standard deviations. The results are presented in table 3.

**Table 3: Extent of Transparency in water projects of Kitui South Sub-County Kenya (n = 162)**

| Statement                                                   | SD       | D         | NS        | A         | SA        | Mean        | Std. Dev    |
|-------------------------------------------------------------|----------|-----------|-----------|-----------|-----------|-------------|-------------|
| Project budgets are openly shared with community members    | 8(4.9%)  | 13(8.0%)  | 24(14.8%) | 69(42.6%) | 48(29.7%) | 3.98        | 0.92        |
| Communities receive regular information on project progress | 6(3.7%)  | 12(7.4%)  | 20(12.3%) | 72(44.4%) | 52(32.2%) | 4.05        | 0.88        |
| Water committees provide regular financial reports          | 9(5.6%)  | 15(9.3%)  | 25(15.4%) | 67(41.4%) | 46(28.3%) | 3.89        | 0.96        |
| Complaints and grievances are handled promptly              | 11(6.8%) | 17(10.5%) | 23(14.2%) | 64(39.5%) | 47(29.0%) | 3.84        | 1.02        |
| Financial reports are accessible to the public              | 12(7.4%) | 18(11.1%) | 26(16.0%) | 62(38.3%) | 44(27.2%) | 3.76        | 1.04        |
| Community members monitor project activities                | 4(2.5%)  | 11(6.8%)  | 18(11.1%) | 73(45.1%) | 56(34.5%) | 4.12        | 0.82        |
| Transparency builds trust and active participation          | 3(1.9%)  | 6(3.7%)   | 13(8.0%)  | 64(39.5%) | 76(46.9%) | 4.33        | 0.71        |
| <b>Average Mean and SD</b>                                  |          |           |           |           |           | <b>4.00</b> | <b>0.91</b> |

## Legend

| Range | Mean range | Response mode     | Interpretation      |
|-------|------------|-------------------|---------------------|
| 5     | 1 – 1.8    | Strongly Disagree | Very unsatisfactory |
| 4     | 1.8– 2.6   | Disagree          | unsatisfactory      |
| 3     | 2.6 – 3.4  | Neutral           | None                |
| 2     | 3.4 – 4.2  | Agree             | Satisfactory        |
| 1     | 4.2 – 5    | Strongly Agree    | Very Satisfactory   |

The results in Table 3 indicate that respondents generally gave positive perceptions regarding transparency in water projects in Kitui South Sub-County, across all indicators. The average mean of 4.00 reveal a generally high level of transparency. The standard deviation (SD = 0.91) is relatively low, indicating general agreement among respondents with moderate variation in views. The results suggest that while transparency mechanisms

are recognized, their implementation may not be uniform across all water projects. This means that, while most practices are transparent (e.g. Communities receive regular information on project progress; Community members monitoring project activities and transparency building trust and active participation), there are some areas where some transparency gaps remain (Water committees providing regular financial reports; Complaints and grievances being handled promptly; and financial reports being accessible to the public). Strengthening these areas could further enhance trust, participation and performance of water projects in the study area (Osei-Tutu & Adjei, 2022).

### Descriptive Statistics on Performance of Water Projects in Kitui South Sub-County, Kenya

Respondents evaluated the performance of water projects using eight questionnaire items on a five-point Likert scale, and the responses were analyzed using frequencies, means, and standard deviations, as presented in Table 2.

| Statement                                                      | SD      | D        | NS        | A         | SA        | Mean        | SD          |
|----------------------------------------------------------------|---------|----------|-----------|-----------|-----------|-------------|-------------|
| Water points remain functional throughout the year             | 6(3.7%) | 12(7.4%) | 21(13.0%) | 70(43.2%) | 53(32.7%) | 4.01        | 0.89        |
| Communities access water without discrimination                | 4(2.5%) | 10(6.2%) | 20(12.3%) | 73(45.1%) | 55(33.9%) | 4.12        | 0.82        |
| Projects meet domestic & livestock needs                       | 5(3.1%) | 11(6.8%) | 20(12.3%) | 72(44.4%) | 54(33.4%) | 4.08        | 0.85        |
| Timely repairs reduce service interruptions                    | 3(1.9%) | 9(5.6%)  | 17(10.5%) | 75(46.3%) | 58(35.7%) | 4.21        | 0.77        |
| Beneficiaries are satisfied with water quality and reliability | 5(3.1%) | 12(7.4%) | 19(11.7%) | 73(45.1%) | 53(32.7%) | 4.06        | 0.88        |
| Trained local operators manage infrastructure sustainably      | 4(2.5%) | 11(6.8%) | 18(11.1%) | 73(45.1%) | 56(34.5%) | 4.10        | 0.83        |
| Community involvement reduces conflicts over water             | 3(1.9%) | 8(4.9%)  | 16(9.9%)  | 73(45.1%) | 62(38.2%) | 4.24        | 0.75        |
| Participatory governance improves service delivery efficiency  | 2(1.2%) | 6(3.7%)  | 12(7.4%)  | 65(40.1%) | 77(47.6%) | 4.37        | 0.68        |
| <b>Average Mean</b>                                            |         |          |           |           |           | <b>4.15</b> | <b>0.81</b> |

**Table 2: Performance of Water Projects in Kitui South Sub-County, Kenya**

Results in Table 2 reveal that performance of water projects in Kitui South Sub-County was rated to be generally high consistently on all the eight items. The average mean of 4.15 indicate that respondents largely agreed that water projects are performing well. The standard deviation of 0.81 is relatively low, suggesting that the responses are fairly consistent with limited variations. The findings imply that the current water projects in the area are able to satisfy the needs of the community and achieve the key targets of managers. Such needs and targets include access to water without discrimination (mean = 4.12; SD = 0.82), existence of trained local operators to manage the water infrastructure sustainably (mean = 4.10; SD = 0.83), projects meeting domestic and livestock needs (mean = 4.08; SD = 0.85), water quality and reliability (mean = 4.06; SD = 0.88), water points remaining functional throughout the year (mean = 4.01, SD = 0.89) and so on.

### Effect of Transparency on Performance of Water Projects in Kitui South Sub-County, Kenya

The study tested a null hypothesis that; *Ho. Transparency has no significant effect on Performance of Water Projects in Kitui South Sub-County, Kenya*. Linear regression was used to test this null hypothesis. The results are presented in table 4.

**Table 4: Linear Regression Results for the Effect of Transparency on Performance of Water Projects Kitui South Sub-County, Kenya**

| Variables Regressed                        |       | R <sup>2</sup> | F      | Sig  |
|--------------------------------------------|-------|----------------|--------|------|
| Transparency Vs Water Projects Performance |       | 0.375          | 63.287 | .003 |
| Coefficients                               | Beta  | Std. Error     | t      | Sig. |
| Transparency                               | 0.213 | 0.071          | 3.000  | .003 |

The results in Table 4 indicate a strong positive and statistically significant relationship between transparency and performance of water projects ( $r^2 = 0.375$ ). This reveals that 37.5% of the variations in water project performance is explained by transparency practices, leaving 62.5% to other factors. The positive  $r^2$  value suggests a positive relationship, implying that improvements in transparency practices are associated with corresponding improvements in the performance of water projects in Kitui South Sub County. Conversely, reduced transparency is associated with weaker project performance and lower community trust in governance structures.

The F-statistic (63.287) and its corresponding sig. value (0.003) indicate that the regression model is statistically significant, since the p-value is less than 0.05. This implies that the independent variable, transparency has a significant effect on performance of water projects. Overall, the ANOVA results provide strong statistical evidence that transparency has a significant influence on performance of water projects in Kitui South Sub-County. The findings for the coefficients show that the independent variable —transparency has a positive and statistically significant effect on performance of water projects ( $p < 0.05$ ). This implies that a one-unit improvement in transparency practices brings a 0.213 units improvement in performance of water projects (Beta = 0.213).

### Qualitative Findings from Interviews

Key informant interviews supported the quantitative results, indicating that transparency played a critical role in improving accountability and community trust. Respondents emphasized that projects that regularly shared financial information and held public meetings experienced fewer conflicts and higher community participation in maintenance activities.

Some key informants stated:

*“Communities are more informed now than before, but some project committees still struggle to provide regular financial updates.”*

*“When water committees openly display income and expenditure reports, the community becomes more cooperative and willing to support the project financially.”*

*Another respondent noted that lack of transparency often led to suspicion and reduced willingness to contribute user fees, which negatively affected project sustainability.*

Interview respondents emphasized that transparency mechanisms such as project financial disclosure and community participation have improved trust between beneficiaries and water project managers.

## DISCUSSIONS OF FINDINGS

The descriptive findings revealed that respondents generally perceived transparency practices to be satisfactory (Mean = 4.00, SD = 0.91), particularly regarding regular communication of project progress, community monitoring of project activities, and the role of transparency in building trust and encouraging participation. However, comparatively lower ratings on public accessibility of financial reports, grievance handling, and regular financial reporting suggest that although transparency mechanisms exist, they are not consistently



implemented across all projects. The study also established that transparency has a positive and statistically significant effect on the performance of water projects in Kitui South Sub-County, Kenya ( $\beta = 0.213, p = 0.003$ ). The regression results further showed that transparency accounted for 37.5% of the variation in project performance ( $R^2 = 0.375$ ), indicating that transparent governance practices substantially contribute to improved outcomes in community water projects. These findings imply that strengthening transparency practices can further enhance project efficiency, accountability, and sustainability.

The findings are consistent with the governance theory advanced by the Organization for Economic Co-operation and Development (OECD, 2021), which argues that transparency promotes accountability by enabling stakeholders to access information, monitor project implementation, and demand responsible use of public resources. The results also support the empirical findings of Osei-Tutu and Adjei (2022), who found that rural water projects in Northern Ghana that openly shared financial information, implementation schedules, and project progress experienced higher functionality of water infrastructure, reduced misuse of funds, and greater community trust. Similarly, Gupta et al. (2021) observed that transparency in participatory governance enhances stakeholder confidence, promotes collaborative decision-making, and improves public service delivery by reducing information asymmetry between project managers and beneficiaries.

## CONCLUSIONS

The study concluded that transparency is a significant determinant of the performance of water projects in Kitui South Sub-County, Kenya. The findings demonstrated that transparency practices, including regular dissemination of project information, community monitoring, financial disclosure, and stakeholder engagement, positively influence the effectiveness and sustainability of water projects. The regression analysis confirmed that transparency had a positive and statistically significant effect on project performance ( $\beta = 0.213, p = 0.003$ ), explaining 37.5% of the variation in performance. These findings indicate that projects characterized by open communication, accessible information, and accountable governance are more likely to achieve reliable service delivery, timely maintenance, increased community trust, and greater beneficiary satisfaction.

Although respondents generally perceived transparency practices to be satisfactory, the study identified notable weaknesses in public accessibility of financial reports, prompt handling of complaints and grievances, and regular financial reporting by water committees. These gaps suggest that transparency mechanisms are not uniformly implemented across all community water projects. Therefore, strengthening institutional transparency systems remains essential for enhancing project performance and ensuring long-term sustainability. The study consequently rejects the null hypothesis that transparency has no significant effect on the performance of water projects in Kitui South Sub-County, Kenya.

## RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made to improve the performance and sustainability of community water projects in Kitui South Sub-County, Kenya.

The County Government of Kitui, through the Department of Water, should strengthen transparency by institutionalizing mandatory public disclosure of project information. Water committees should regularly publish project budgets, procurement records, expenditure reports, implementation progress, and maintenance schedules through community notice boards, public barazas, and digital communication platforms where feasible. This will improve public confidence, reduce opportunities for resource mismanagement, and promote informed community participation.

The study recommends that water management committees should establish robust accountability mechanisms by conducting regular financial reporting, annual participatory audits, and periodic stakeholder review meetings. In addition, accessible grievance redress systems should be developed to enable community members to report complaints, seek clarification, and provide feedback on project implementation. Prompt resolution of grievances will strengthen trust between project managers and beneficiaries while improving service delivery.

The County Government, together with development partners and non-governmental organizations, should continuously build the capacity of water committees through training on financial management, transparent procurement practices, record keeping, governance principles, and community engagement. Such capacity-building initiatives will improve compliance with governance standards and enhance the ability of committees to manage water projects effectively and accountably.

## REFERENCES

1. Abong, H., & Wamalwa, F.K. (2025). Community participation as a moderator of household socio-economic traits and sustainability of Muhuru community water project in rural Kenya. *American Journal of Gender and Development Studies*, 4(1), 11-18. <https://doi.org/10.58425/ajgds.v4i1.411>
2. Abubakari, M. A. (2025). Gender-inclusive governance in rural water management in Ghana. *Discover Water*, 5, 55. <https://doi.org/10.1007/s43832-025-00253-7>
3. Arnstein, S.R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
4. Awuora, M. A. (2024). Effects of community participation on the sustainability of county government funded water projects: A case of Kaiti-Kamunyii Water Project, Makueni County, Kenya [Master's thesis, Daystar University]. Daystar University Repository. Retrieved from <https://repository.daystar.ac.ke/handle/123456789/6168>
5. Creswell, J. W. & Plano Clark, V.L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
6. Gupta, S., Kumar, P., & Rao, S. (2021). Participatory governance and public service delivery in semi-arid regions. *Journal of Development Studies*, 57(9), 1658–1675. <https://doi.org/10.1080/00220388.2020.1761234>
7. Kamau, M., Lango, B., & Onsarigo, T. (2023). Community involvement and the performance of community water projects in Nakuru County, Kenya. *Journal of Entrepreneurship & Project Management*, 5(2), 44-53. <https://doi.org/10.70619/vol5iss2pp44-53>
8. Moriarty, P., Butterworth, J., & van Koppen, B. (2021). Governance and performance in rural water services. *Water Policy*, 23(3), 405–422. <https://doi.org/10.2166/wp.2021.139>
9. Mugenda, O. M., & Mugenda, A. G. (2014). *Research methods: Quantitative and qualitative approaches* (Revised edition). ACTS Press.
10. Mutanda, G. W., & Nhamo, G. (2024). Gendered perspective on water security, rights and conflicts in sub-Saharan Africa: A systematic review. *Frontiers in Water*, 6, 1399415. <https://doi.org/10.3389/frwa.2024.1399415>
11. Osei-Tutu, R., & Adjei, P. (2022). Transparency and community participation in rural water projects in Northern Ghana. *African Journal of Water and Sanitation*, 18(2), 67–85.
12. Rahman, M., & Sultana, F. (2023). Accountability mechanisms in rural water governance: Lessons from Bangladesh. *Journal of Water, Sanitation, and Hygiene for Development*, 13(1), 21–38. United Nations. (2015).
13. Transparency International. (2022). *Global corruption report: Water and public resource governance*. <https://www.transparency.org>
14. United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. <https://sdgs.un.org/2030agenda>
15. World Bank. (2021). *Water sector governance and rural water service delivery: Global evidence report*. <https://www.worldbank.org>