STAKEHOLDERS' ENGAGEMENT AND PERFORMANCE OF GREEN CITY PILOT PROJECT, KIGALI, RWANDA

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ABSTRACT

This study examined the influence of stakeholder engagement on the performance of the Green City Pilot Project in Kigali, Rwanda. Specifically, it assessed stakeholder engagement during project conceptualization, resource mobilization, and execution. The study was guided by Stakeholder Theory and Project Management Theory. A mixed-methods approach was adopted, using a descriptive and correlational research design to examine engagement practices and their relationship with project performance. The target population comprised 425 stakeholders, including government representatives, project management personnel, contractors, community representatives, and development partners. Using Yamane's (1967) formula, a sample of 223 respondents was determined. Stratified and simple random sampling techniques were employed to select participants. A pilot study involving 10% of the sample was conducted at Kibanza Affordable Housing Project in Gasabo District. Reliability was assessed using Cronbach's alpha, with coefficients of 0.70 or above considered acceptable. Validity was enhanced through expert review and pilot testing, while qualitative trustworthiness was established through credibility, transferability, dependability, and confirmability. Data were collected using structured questionnaires, semi-structured interviews, and focus group discussions. Quantitative data were analyzed in SPSS using descriptive statistics, correlation analysis, ANOVA, and multiple regression, while qualitative data were analyzed thematically using NVivo. The findings indicated that stakeholder engagement varied across project phases, with greater participation reported during execution than during conceptualization and resource mobilization. Correlation analysis revealed positive and statistically significant relationships between project performance and stakeholder engagement during conceptualization ($r = 0.742$, $p < 0.001$), resource mobilization ($r = 0.718$, $p < 0.001$), and execution ($r = 0.781$, $p < 0.001$). Execution demonstrated the strongest observed relationship with project performance. The study concluded that stakeholder engagement is associated with improved project performance. It recommends strengthening early stakeholder consultations, promoting inclusive resource mobilization, institutionalizing participatory monitoring, and improving communication and accountability mechanisms to support sustainable urban development projects in Rwanda.

Keywords: Project, Project implementation, Project Monitoring, Project performance, Project planning and Stakeholder engagement.

INTRODUCTION

Background to the Study

Project performance is a critical indicator of success in construction initiatives worldwide, encompassing not only traditional measures such as time, cost, and quality but also sustainability, social inclusion, and stakeholder satisfaction (Chang, 2023; Bal, Bryde, Fearon, & Ochieng, 2023). Effective stakeholder engagement is widely recognized as a determinant of project success, enabling informed decision-making, conflict reduction, and enhanced public acceptance (Bal et al., 2023). Conversely, insufficient engagement is associated with delays, cost overruns, and limited long-term impact. At a global level, construction projects increasingly face the challenge of integrating technical feasibility, financial sustainability, and social considerations. Research demonstrates that projects incorporating continuous stakeholder engagement across conceptualization, resource mobilization, and execution phases achieve higher performance outcomes compared to those with limited engagement (Moodley, 2022; Bal, Bryde, Fearon, & Ochieng, 2023). Engaging stakeholders throughout the project lifecycle helps to align project objectives with community needs, fosters accountability, and ensures broader support for sustainable initiatives.

In the African context, infrastructure and urban development projects are expanding rapidly, driven by government-led programs, public-private partnerships, and international donor support (Ogawa, 2024). Despite significant investment, project performance often suffers due to weak engagement strategies. Studies indicate that inclusive and participatory approaches, which actively involve government agencies, private sector actors, civil society, and local communities, correlate with improved project outcomes, including timely completion, quality standards, and sustainability (Botchway, 2021; Lyons, Smuts, & Stephens, 2024). Conversely, projects that rely on top-down decision-making or superficial consultation risk low ownership, reduced accountability, and limited long-term benefits. In Africa's construction sector, stakeholder engagement is especially critical due to the complexity of interactions among developers, contractors, regulators, financiers, communities, and environmental advocates. Tokenistic engagement, including the exclusion of marginalized groups such as women, youth, and vulnerable populations, negatively impacts project performance and social acceptance (UNDP, 2020).

Within Rwanda, construction projects are central to achieving socio-economic transformation, guided by frameworks such as Vision 2050 and the National Strategy for Transformation (NST1). The government emphasizes sustainable urban development, green building practices, and participatory resource mobilization to ensure inclusive growth (Ogawa, 2024). However, studies reveal that project performance is contingent on robust stakeholder engagement mechanisms that foster collaboration among public institutions, private sector entities, NGOs, and local communities. Projects with strong engagement strategies demonstrate improved timelines, cost management, quality outcomes, and community support, while projects with limited engagement struggle to meet intended goals (Moodley, 2022).

Problem statement

Ideally, sustainable urban development projects should achieve their objectives through effective stakeholder engagement throughout conceptualization, resource mobilization, and execution, thereby promoting efficiency, accountability, quality, and sustainability. The Green City Pilot Project in Kigali was designed to advance sustainable urbanization through green housing, renewable energy, efficient waste management, and climate-resilient infrastructure (REMA, 2021; Green Fund Rwanda, 2024). However, reported challenges involving project delays, financing, stakeholder coordination, and community participation raise concerns about the effectiveness of engagement across the project lifecycle.

Globally, fewer than 40% of large-scale infrastructure projects reportedly achieve sustained outcomes beyond implementation (World Bank, 2023). In Africa, inadequate stakeholder involvement during project conceptualization and resource mobilization has been associated with weak ownership, resistance, and reduced sustainability (Moodley, 2022; Sinclair, 2024). In Rwanda, studies conducted in Rwamagana, Gasabo, and Rubavu have highlighted concerns about stakeholder participation and monitoring in development projects (Shema & Irechukwu, 2022; Moussa & Akims, 2024; Iribagiza & Kirabo, 2024). These challenges may undermine project efficiency, sustainability, and replicability (Green Climate Fund & Ministry of Environment, 2024; World Bank, 2025).

Despite these concerns, limited empirical evidence establishes how stakeholder engagement during conceptualization, resource mobilization, and execution relates to the performance of Rwanda's Green City Pilot Project. In particular, the relative contribution of engagement at each phase to measurable project performance remains insufficiently established. This evidence gap limits informed decisions on where engagement should be strengthened. Therefore, this study examined the relationship between stakeholder engagement across the three project phases and the performance of the Green City Pilot Project in Kigali, Rwanda.

Justification

The Green City Pilot Project represents Rwanda's efforts to promote sustainable urban development through environmentally responsible housing and infrastructure. Its performance depends not only on technical and financial resources but also on how stakeholders participate in defining project priorities, mobilizing resources, and overseeing implementation. However, limited empirical evidence establishes how engagement during these three phases relates to project performance in Rwanda's sustainable urban development context. In particular, the extent to which engagement at each phase is associated with project performance indicators, including achievement of project milestones, budget adherence, quality, and stakeholder satisfaction, remains insufficiently documented.

This study was therefore undertaken to generate project-specific evidence on the relationship between stakeholder engagement during conceptualization, resource mobilization, and execution and the performance of the Green City Pilot Project in Kigali. By examining these dimensions separately, the study sought to identify areas where stakeholder participation could be strengthened and provide a basis for improving engagement strategies, project coordination, and accountability. The findings offer a context-specific contribution to understanding stakeholder engagement in sustainable urban development and may inform the management of similar projects in Rwanda.

Research objectives

The main aim of this study was to examine the influence of stakeholder engagement on project performance in Rwandan construction sector, using the Green City Pilot Project as a case.

The specific objectives of the study were as follows:

i. To examine the influence of stakeholder engagement in project conceptualization on performance of Green City Pilot project in Kigali, Rwanda.
ii. To examine the influence of stakeholder engagement in resource mobilization on performance of Green City Pilot project in Kigali, Rwanda.
iii. To examine the influence of stakeholder engagement in execution on the performance of the Green City Pilot Project in Kigali, Rwanda.

LITERATURE REVIEW

Conceptual review

Stakeholder engagement

Meaningful stakeholder engagement refers to the deliberate, structured, and continuous involvement of individuals, groups, and institutions in decision-making processes, enabling them to contribute perspectives, influence outcomes, and develop a sense of accountability for project success (Freeman, 2024). It extends beyond mere consultation to active participation, fostering collaboration among diverse actors, including government agencies, contractors, financiers, civil society organizations, community representatives, and environmental regulators (MININFRA, 2023; Green City Kigali Project Office, 2024). Engagement occurs at multiple stages of the project lifecycle such as conceptualization, resource mobilization, execution, and monitoring.

Stakeholder Engagement in Project Conceptualization

Stakeholder engagement during project conceptualization refers to the proactive and structured involvement of all relevant parties at the initial stages of defining project goals, scope, and feasibility. This early engagement ensures that diverse perspectives are considered in shaping project objectives, mitigating potential conflicts, and enhancing the alignment between project deliverables and stakeholder expectations (World Bank, 2022). Engaging stakeholders from government agencies, civil society organizations, private investors, and local communities facilitates the identification of potential risks, social sensitivities, and technical constraints, which can significantly influence project viability and sustainability.

Stakeholder Engagement in Resource Mobilization

Stakeholder engagement during resource mobilization is a critical process that ensures coordinated planning, efficient allocation of financial, technical, and human resources, and enhances transparency and accountability across project actors (Rwanda Development Board [RDB], 2023; Ministry of Finance and Economic Planning [MINECOFIN], 2022). Early and meaningful engagement enables project teams to identify potential funding sources, align contributions with project objectives, and reduce duplication of efforts or conflicts over resource allocation. It also facilitates the establishment of shared responsibilities and collective ownership among financiers, government agencies, technical experts, and community representatives.

Stakeholder Engagement in Execution

Stakeholder engagement during the execution phase is critical for ensuring that projects adhere to quality standards, meet timelines, and comply with sustainability benchmarks. Structured engagement mechanisms allow project teams to coordinate effectively with contractors, regulators, community representatives, and other relevant actors, fostering accountability, transparency, and responsiveness to emerging challenges (MININFRA, 2023; REMA, 2023).

Project Performance

Project performance is a multidimensional concept encompassing timely completion, cost efficiency, quality, stakeholder satisfaction, sustainability, and socio-economic impact (Turner & Müller, 2021; World Bank, 2022). Project performance ensures that companies maximize their profitability, minimize the consequences of risky and uncertain events in terms of achieving project goals, and take advantage of the chances of risky events occurring (Kululanga, 2010). Quality is the set of properties that a product needs in order to meet the desired need and fulfill the purpose. Project performance is evaluated differently by different project stakeholders based on their expectations of actual quality, cost, and time. Project performance can be measured by the qualitative value that the project has to the implementing organization, or quantitatively by the earned value systems for utility and large government projects (Kelbessa, 2016).

Conceptual framework

A conceptual framework represents the researcher's synthesis of literature on how to explain a phenomenon. The conceptual framework links the independent variables to dependent variable to indicate the relationship between stakeholder engagement practices and the project performance. The independent variables in the study conceptual framework will be stakeholder engagement practices in project conceptualization, resource mobilization, and in execution while project performance is the dependent variable.

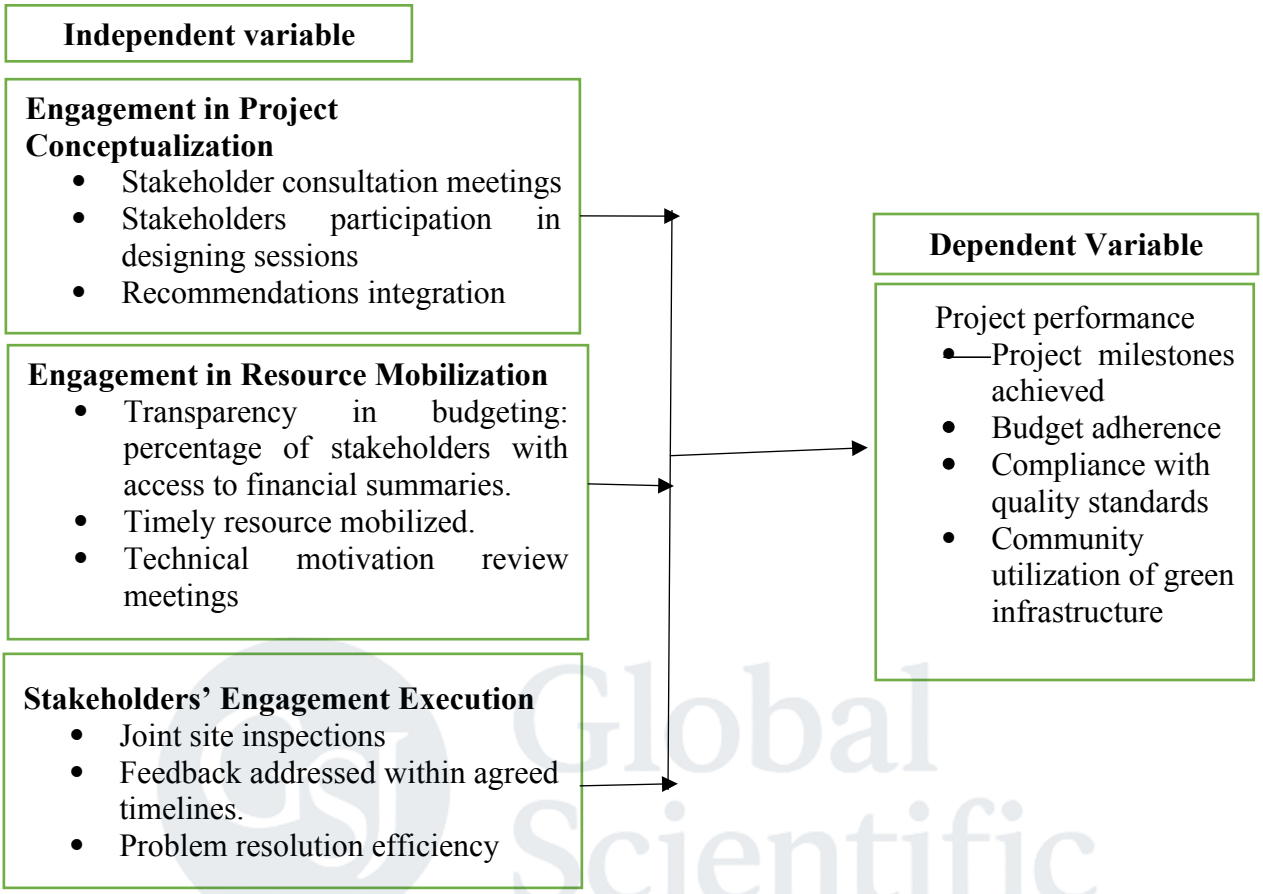


Figure 1: Conceptual framework

Source: Researcher's Conceptualization, 2026

Figure 1 above indicates the linkage between independent variables which are stakeholder engagement practices in project conceptualization, resource mobilization, and in execution, and the dependent variable which is the project performance. It also shows the sub-variables under both independent and dependent variables under study.

Theoretical Review

This study was guided by the following theories, namely: Stakeholder Theory, the Project Management Body of Knowledge (PMBOK) framework, and Collaborative Governance Theory.

Stakeholder Theory

Stakeholder Theory, associated with Freeman (1984), holds that organizational decisions and outcomes are influenced by relationships with groups that affect or are affected by an organization's activities. The theory challenges approaches that prioritize the interests of a single actor and instead emphasizes the importance of recognizing different stakeholder interests and their implications for decision-making. For this study, Stakeholder Theory provides the basis for examining whether engagement practices are associated with project performance. It directs attention to the interests, influence, and contributions of government institutions, investors, contractors, development partners, and affected communities. It also helps explain why

differences in stakeholder representation and influence may affect project decisions and perceived outcomes.
In this study, Stakeholder Theory supports the analysis of engagement during conceptualization, resource mobilization, and execution in relation to project performance. It provides the conceptual basis for investigating whether stakeholder involvement is associated with the achievement of project milestones, budget adherence, quality, and other selected performance indicators.

Project Management Theory: PMBOK Framework

The Project Management Body of Knowledge (PMBOK) framework, developed by the Project Management Institute, provides recognized principles and practices for managing projects. The seventh edition, published in 2021, emphasizes principles such as stakeholder engagement, value delivery, stewardship, adaptation, and effective project management. Rather than functioning as a single explanatory theory, PMBOK provides a structured professional framework for understanding project management practices and their relationship with intended outcomes. The framework is relevant to this study because it connects stakeholder-related processes with project governance, planning, resource management, communication, risk management, and performance evaluation. It therefore provides a practical basis for examining whether stakeholder engagement is integrated into the management arrangements of the Green City Pilot Project and whether such practices correspond with the selected performance indicators.

For this study, PMBOK provides a project-management lens for examining engagement across conceptualization, resource mobilization, and execution. It also supports the interpretation of performance in relation to milestones, budget adherence, quality, and other indicators specified in the research instruments.

Collaborative Governance Theory

Collaborative Governance Theory, developed in influential work by Ansell and Gash (2008), explains how public institutions and non-state actors work together through structured decision-making and collective problem-solving. The approach emphasizes institutional arrangements, participation, dialogue, trust-building, and the conditions under which actors with different interests can cooperate toward shared objectives. The theory is particularly relevant to multi-actor development projects because responsibilities and resources are often distributed among public agencies, private organizations, technical specialists, development partners, and communities. It provides a basis for examining whether the arrangements for stakeholder interaction support cooperation and coordinated decisions within the Green City Pilot Project.

In this study, Collaborative Governance Theory helps interpret how opportunities for dialogue, joint decision-making, and coordinated action relate to stakeholder engagement during the three selected project phases. It complements Stakeholder Theory by emphasizing relationships among actors and complements the PMBOK framework by focusing on the collaborative arrangements through which project decisions are negotiated and implemented.

Empirical review

From literature reviewed, it is clear that the success of every project depends on effective engagement of both internal and external stakeholders. In this regard, past and current empirical studies have been reviewed with the aim of assessing the effects of stakeholder engagement practices and the project performance.

Stakeholder Engagement in Project Conceptualization and Project Performance

Stakeholder engagement during project conceptualization involves identifying relevant stakeholders and incorporating their views into project priorities, objectives, design, and expected outcomes. Arlati et al. (2021) examined stakeholder participation in planning and designing nature-based solutions through the CLEVER Cities project in Hamburg, Germany. Their case-study analysis explored co-creation processes, stakeholder roles, and the procedural challenges associated with participatory urban planning. In Rwanda, Kayonga and Irechukwu (2023) examined stakeholder engagement and the performance of the Mpazi informal settlement upgrading project in Kigali City. The researchers used a descriptive case-study design combining quantitative and qualitative approaches. From a target population of 550, they selected 110 respondents using stratified sampling. Kwizera (2025) investigated stakeholder engagement and the performance of Rwanda's Green Gicumbi Project using a mixed-methods approach involving 150 respondents. Taken together, these studies indicate that stakeholder participation during project identification and planning is relevant to aligning project decisions with stakeholder needs. However, the evidence varies in its outcome measures and research designs.

Stakeholder Engagement in Resource Mobilization and Project Performance

Resource mobilization involves identifying, securing, coordinating, and allocating the financial, human, technical, and material resources required to achieve project objectives. Stakeholder engagement at this stage may help project teams understand resource requirements, coordinate the contributions of different actors, clarify responsibilities, and identify potential constraints before implementation. Nziyumvira and Amolo (2025) examined stakeholder engagement strategies and road construction project performance in Musanze District, Rwanda. Their study used descriptive and correlational research designs and involved 122 respondents selected from a population of 176 stakeholders in the Rwanda Urban Development Project. The reviewed evidence consequently provides a less direct basis for assessing resource mobilization than for assessing engagement during project identification and planning. This distinction is important because obtaining stakeholder input is not equivalent to securing financial commitments, accessing technical expertise, or ensuring that allocated resources reach intended project activities. These outcomes require separate measurement rather than being inferred from general indicators of stakeholder participation.

Stakeholder Engagement in Execution and Project Performance

Project execution is the stage at which planned activities are implemented and project deliverables are produced. Stakeholder engagement during this stage may support coordination, monitoring, communication, quality assurance, problem resolution, and accountability. Kayonga

and Irechukwu (2023) also examined engagement during implementation in the Mpazi informal settlement upgrading project. Nziyumvira and Amolo (2025) provide additional evidence from road construction projects in Musanze District, where stakeholder involvement, collaboration, participation, and empowerment were reported to be significantly associated with project performance. Kwizera (2025) likewise examined stakeholder engagement in planning, decision-making, and implementation in the Green Gicumbi Project. The reviewed studies suggest that engagement during execution can support coordination and project oversight, but the strength of the evidence depends on how engagement and performance are measured. General satisfaction or perceived success may not fully capture objective outcomes such as adherence to project milestones, budget performance, deliverable quality, and the continued functionality of green infrastructure.

RESEARCH METHODOLOGY

This chapter consists of research design, target population, sampling design, research methods/instruments, data analysis and ethical considerations.

Research Design

In this study, a descriptive research design was used. The descriptive component captured stakeholder involvement across all project phases, providing a clear picture of engagement patterns, trends, and variations. Additionally, the study incorporated a correlational design, which allowed for examination of the magnitude and direction of relationships between variables.

Target population

The target population comprises all individuals, institutions, or units that possess characteristics relevant to the study and to whom the results of the research are intended to apply. It represented the broader group from which the study sample is selected (Creswell & Creswell, 2023). For this study, the target population comprised all stakeholders engaged in the Green City Pilot Project in Kigali, Rwanda. These include government representatives, project management teams, private sector partners, community representatives, and donor/development partner representatives (Green City Kigali Project Records (2024).

Table 1: Target population

Stakeholder Category	Estimated Population
Government Representatives	60
Project Management & Technical Teams	35
Private Sector Partners & Contractors	85
Community Representatives	220
Donor & Development Partners	25
Total	**425**

Sample size and sampling technique

For this study, stratified sampling was used to ensure that key subgroups within the target population are adequately represented, thereby improving the accuracy and generalizability of the findings. Simple random sampling technique was used after identifying strata of the target population in order to ensure equal chance of respondents' selection. Sample size for this study was determined using Yamane's (1967) formula, which was widely used for finite populations and has been cited in recent empirical research. The formula was:

$n=N/1+(e)^2$

Where: n = sample size, N = population size (425 in this study), e = level of precision or margin of error (0.05 for 95% confidence level). The sample size became 223 respondents as shown in the table below.

Table 2: Sampling Framework with Proportional Allocation

Stakeholder Category	**Population**	**Proportional Sample**	**Sampling Technique**
Government Representatives	60	31	Stratified random sampling
Project Management & Technical Teams	35	18	Random selection
Private Sector Contractors & Suppliers	85	45	Random sampling
Community Representatives	220	116	Random household selection
Donor & Development Partners	25	13	Random sampling
Total	425	223	

Source: Primary data, 2026

Data Collection Tools

Data collection instruments were the tools used to gather relevant information systematically and consistently (Creswell & Creswell, 2023). This study utilized three primary instruments to obtain both quantitative and qualitative data: A structured questionnaire was developed to capture quantitative data from the selected sample of stakeholders. The questionnaire contained closed-ended questions and five-point Likert scale items measuring the level of stakeholder engagement across the three key phases project conceptualization, resource mobilization, and execution and project success measurement including timeliness, cost efficiency as well as quality assurance and project sustainability. A semi-structured interview guide was employed to conduct in-depth discussions with selected key informants, including project managers, donor representatives, government officials, and community leaders allowing flexibility to probe emerging issues while ensuring that all relevant topics aligned with the study objectives are adequately covered. The FDG

guide was used to facilitate focus group discussions with community members and project implementers. The guide focused on collective experiences, consensus views, and shared challenges related to engagement practices. FGDs helped validate questionnaire and interview findings by providing group-level perspectives.

Data analysis

This study used quantitative research method. Therefore, data analysis was done using Statistical Package for Social Sciences (SPSS) software. Simple descriptive statistics such as frequencies, percentage and mean were determined for moderating variables. The regression analysis was used to describe relationships between the independent and dependent variables. The relationships between stakeholder engagement practices (independent variables) and project performance (dependent variable) was measured using Pearson correlation coefficient (r) and standard deviation (SD).

Ethical considerations

Before commencing data collection, formal permission was sought from all relevant authorities, including project coordinators of the Green City Pilot Project Kigali City local government representatives, and other institutional stakeholders. All participants were provided with clear and detailed information about the study's objectives, procedures, potential risks, and expected benefits before data collection. To protect participant privacy, all data collected was treated as strictly confidential. The identities of participants remained anonymous in all study reports, publications, and presentations. This research upheld the highest standards of academic integrity by appropriately acknowledging all sources and contributors. No participant faced coercion, undue influence, or negative consequences for refusing or withdrawing from the study. The recruitment process emphasized voluntary and free choice, avoiding any form of pressure or inducement. All collected data was securely stored to protect it from unauthorized access or loss. Research team members maintained professional conduct, including appropriate attire and respectful communication, throughout the fieldwork.

RESEARCH FINDINGS

This chapter presents the data gathered and from the sample population. It indicates the findings of the study and interprets them based on the results from analysis. Descriptive statistics, correlation and regression analysis were employed to analyze the data presented in this chapter.

Table 3: Reliability Test Results (Cronbach's Alpha)

Variable	Number of Items	Cronbach's Alpha
Stakeholder Engagement in Project Conceptualization	10	0.821
Stakeholder Engagement in Resource Mobilization	9	0.847
Stakeholder Engagement in Project Execution	9	0.876
Project Performance	9	0.854
Overall Reliability	**37**	**0.850**

Source: Pilot Study Data (2026)

The findings in Table 3 indicate that all study variables recorded Cronbach's Alpha coefficients above the recommended threshold of 0.70. This confirms that the research instrument had acceptable internal consistency and was reliable for use in the main study.

Table 4: Content Validity Index Results

Variable	Relevant Items	Total Items	CVI
Stakeholder Engagement in Project Conceptualization	9	10	0.90
Stakeholder Engagement in Resource Mobilization	8	9	0.89
Stakeholder Engagement in Project Execution	8	9	0.89
Project Performance	8	9	0.89
Overall CVI	**33**	**37**	**0.89**

Source: Expert Evaluation Results (2026)

The findings in table 4 above show that the overall Content Validity Index was 0.89, which is above the recommended minimum threshold of 0.70 (Amin, 2020). This confirms that the research instruments were valid and appropriate for measuring the study variables.

Table 5: Response Rate of the Study

Response Category	Frequency	Percentage (%)
Returned Questionnaires	210	94.2
Unreturned/Incomplete Questionnaires	13	5.8
Total	223	100

Source: Field Data (2026)

Out of the 223 questionnaires distributed, 210 questionnaires were successfully completed and returned, representing a response rate of 94.2%, while 13 questionnaires representing 5.8% were not returned or were incomplete, as shown in Table 5 above.

Table 6: Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	128	61
	Female	82	39
	Total	210	100
Age Group	18–30 years	42	20
	31–40 years	86	41
	41–50 years	55	26.2
	Above 50 years	27	12.8
	Total	210	100

Education Level	Secondary Education	36	17.1
	Diploma	49	23.3
	Bachelor's Degree	88	41.9
	Master's Degree and Above	37	17.7
	Total	210	100
Stakeholder Category	Government Representatives	29	13.8
	Project Management & Technical Teams	17	8.1
	Private Sector Contractors & Suppliers	43	20.5
	Community Representatives	108	51.4
	Donor & Development Partners	13	6.2
	Total	210	100
Work Experience	Less than 5 years	38	18.1
	5–10 years	91	43.3
	11–15 years	52	24.8
	Above 15 years	29	13.8
	Total	210	100

Source: Field Data (2026)

The study's demographic findings revealed, as shown in Table 6 above, that a majority of respondents were male (61.0%), while female participation (39.0%) highlighted gender inclusion in stakeholder engagement for the Green City Pilot Project. Most participants were in their prime productive age, primarily between 31 and 40 years (41.0%) followed by 41 to 50 years (26.2%), bringing relevant operational experience to the study. The respondent pool was well-educated, with 41.9% holding bachelor's degrees and 23.3% holding diplomas, which ensured informed and credible perspectives on project performance. In terms of stakeholder representation, community representatives formed the largest group (51.4%), reflecting direct local community involvement, followed by private sector contractors and suppliers (20.5%), government representatives (13.8%), project management and technical teams (8.1%), and donor/development partners (6.2%). Furthermore, the majority had substantial professional experience, with 43.3% having 5–10 years and 24.8% having 11–15 years in work practice, confirming that respondents possessed sufficient background knowledge to provide reliable and high-quality insights into project implementation.

Stakeholder Engagement in Project Conceptualization and Performance of the Green City Pilot Project

Table 7: Descriptive Findings on Stakeholder Engagement in Project Conceptualization

Statements	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
Participation in identifying project goals and objectives	4(1.9%)	8(3.8%)	15(7.1%)	101(48.1%)	82(39.1%)	4.19	0.821
Participation in feasibility studies	5(2.4%)	10(4.8%)	19(9.0%)	98(46.7%)	78(37.1%)	4.11	0.876
Contribution to stakeholder needs assessment	4(1.9%)	9(4.3 %)	17(8.1%)	103(49.0%)	77(36.7%)	4.14	0.841
Engagement in defining project scope	6(2.9%)	12(5.7%)	20(9.5%)	97(46.2%)	75(35.7%)	4.06	0.924
Input on environmental and social impact considerations	3(1.4%)	7(3.3%)	13(6.2%)	101(48.1%)	86(41.0%)	4.24	0.772
Participation in risk identification	5(2.4%)	11(5.2%)	18(8.6%)	99(47.1%)	77(36.7%)	4.10	0.881
Engagement in initial budgeting estimates	7(3.3%)	13(6.2%)	21(10.0%)	96(45.7%)	73(34.8%)	4.02	0.958
Involvement in identifying funding sources	8(3.8%)	14(6.7%)	23(11.0%)	94(44.8%)	71(33.7%)	3.97	0.992
Collaboration in setting timelines and milestones	6(2.9%)	12(5.7%)	18(8.6%)	99(47.1%)	75(35.7%)	4.07	0.901
Alignment with national development policies	3(1.4%)	6(2.9%)	12(5.7%)	96(45.7%)	93(44.3%)	4.29	0.741
Aggregate Mean and Standard Deviation						**4.12**	**0.871**

Source: Field Data (2026)

The findings in Table 7 indicate that stakeholder engagement during project conceptualization was highly practiced, as reflected by the aggregate mean of 4.12 and standard deviation of 0.871. The highest-rated statement was alignment with national development policies with a mean score of 4.29, followed by stakeholder input on environmental and social impact considerations with a mean of 4.24.

Qualitative findings also supported the quantitative results.

"Stakeholders were consulted from the beginning, especially in identifying environmental priorities and community expectations, which improved project acceptance." — Government Official

"Early engagement of community members reduced misunderstandings and increased trust in the project implementation process." — Community Representative

"Stakeholder participation during conceptualization improved coordination between government agencies, donors, and contractors." — Project Technical Officer

Table 8: Correlation Analysis

Variables	**Project Performance**
Stakeholder Engagement in Project Conceptualization	Pearson Correlation = 0.742**
	Sig. (2-tailed) = 0.000
	N = 210

The correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2026)

The findings in Table 14 indicate a strong positive and statistically significant relationship between stakeholder engagement in project conceptualization and project performance (r = 0.742, p = 0.000).

Table 9: Model Summary

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of Estimate**
1	0.742	0.551	0.548	0.517

Source: Field Data (2026)

The findings indicated in Table 9 above show that stakeholder engagement in project conceptualization has a strong positive relationship with project performance, as shown by R = 0.742.

Table 10: ANOVA Results

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	67.841	1	67.841	253.912	0.000
Residual	55.536	208	0.267		
Total	123.377	209			

Source: Field Data (2026)

The ANOVA findings indicated in Table 10 above show that the regression model was statistically significant (F = 253.912, p = 0.000).

Table 11: Regression Coefficients

Variables	Unstandardized Coefficients (B)	Std. Error	Beta	t	Sig.
Constant	1.124	0.241		4.664	0.000
Stakeholder Engagement in Project Conceptualization	0.731	0.046	0.742	15.934	0.000

Source: Field Data (2026)

The regression findings revealed in Table 11 above show that stakeholder engagement in project conceptualization positively and significantly influences project performance (β = 0.742, p = 0.000).

Stakeholder Engagement in Resource Mobilization and Performance of the Green City Pilot Project

Table 12: Descriptive Findings on Stakeholder Engagement in Resource Mobilization

Statements	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
Contribution to project financing decisions	5(2.4%)	11(5.2%)	19(9.0%)	98(46.7%)	77(36.7%)	4.10	0.882
Participation in developing detailed project resources	6(2.9%)	13(6.2%)	21(10.0%)	96(45.7%)	74(35.2%)	4.04	0.931
Engagement in selecting project materials and technologies	4(1.9%)	9(4.3%)	17(8.1%)	101(48.1%)	79(37.6%)	4.15	0.842
Involvement in financial resourcing	7(3.3%)	14(6.7%)	22(10.5%)	94(44.8%)	73(34.7%)	4.01	0.972

Statements	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
Contribution to mobilizing human resources and expertise	5(2.4%)	10(4.8%)	18(8.6%)	99(47.1%)	78(37.1%)	4.12	0.861
Participation in negotiations for funding and grants	8(3.8%)	15(7.1%)	24(11.4%)	91(43.3%)	72(34.4%)	3.97	1.011
Collaboration on sourcing sustainable and green resources	3(1.4%)	8(3.8%)	14(6.7%)	98(46.7%)	87(41.4%)	4.23	0.781
Engagement in identifying resource-related risks	5(2.4%)	12(5.7%)	20(9.5%)	96(45.7%)	77(36.7%)	4.09	0.903
Ensuring compliance with environmental regulations	2(1.0%)	7(3.3%)	13(6.2%)	95(45.2%)	93(44.3%)	4.29	0.744
Aggregate Mean and Standard Deviation						**4.11**	**0.881**

Source: Field Data (2026)

The findings in Table 18 indicate that stakeholder engagement in resource mobilization was highly practiced, as reflected by the aggregate mean of 4.11 and standard deviation of 0.881. The highest-rated statement was ensuring compliance with environmental regulations with a mean score of 4.29, followed by collaboration on sourcing sustainable and green resources with a mean of 4.23.

Qualitative findings also supported the quantitative results.

"Stakeholder collaboration helped mobilize adequate financial and technical resources necessary for implementing green infrastructure activities." — Donor Representative

"Government institutions, contractors, and development partners worked together to ensure that resources were properly allocated and monitored." — Project Manager

"The involvement of multiple stakeholders improved transparency and reduced misuse of project resources." — Community Representative

Table 13: Correlation Analysis

Variables	Project Performance
Stakeholder Engagement in Resource Mobilization	Pearson Correlation = 0.718**
	Sig. (2-tailed) = 0.000
	N = 210

Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2026)

The findings in Table 13 reveal that there was a strong positive and statistically significant relationship between stakeholder engagement in resource mobilization and project performance (r = 0.718, p = 0.000).

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.718	0.516	0.513	0.538

Source: Field Data (2026)

The findings in Table 14 above indicate that stakeholder engagement in resource mobilization had a strong positive relationship with project performance as shown by R = 0.718.

Table 15: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	63.214	1	63.214	218.472	0.000
Residual	60.163	208	0.289		
Total	123.377	209			

Source: Field Data (2026)

The ANOVA findings in Table 15 above indicate that the regression model was statistically significant (F = 218.472, p = 0.000).

Table 16: Regression Coefficients

Variables	Unstandardized Coefficients (B)	Std. Error	Beta	t	Sig.
Constant	1.208	0.233		5.184	0.000
Stakeholder Engagement in Resource Mobilization	0.694	0.047	0.718	14.781	0.000

Source: Field Data (2026)

The regression findings in Table 16 above reveal that stakeholder engagement in resource mobilization positively and significantly influenced project performance ($\beta = 0.718$, $p = 0.000$).

Stakeholder Engagement in Project Execution and Performance of the Green City Pilot Project

Table 17: Descriptive Findings on Stakeholder Engagement in Project Execution

Statements	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
Participation in managing project scope and deliverables	5(2.4%)	10(4.8%)	18(8.6%)	101(48.1%)	76(36.1%)	4.11	0.861
Engagement in quality control and assurance procedures	3(1.4%)	8(3.8%)	14(6.7%)	99(47.1%)	86(41.0%)	4.23	0.772
Supervision of subcontractors and suppliers	6(2.9%)	12(5.7%)	20(9.5%)	96(45.7%)	76(36.2%)	4.07	0.912
Health and safety monitoring on site	4(1.9%)	9(4.3%)	16(7.6%)	98(46.7%)	83(39.5%)	4.18	0.821
Participation in resource allocation and logistics	5(2.4%)	11(5.2%)	21(10.0%)	95(45.2%)	78(37.2%)	4.10	0.884
Collaboration in addressing execution challenges and delays	4(1.9%)	10(4.8%)	18(8.6%)	97(46.2%)	81(38.5%)	4.15	0.843
Ensuring compliance with construction standards	2(1.0%)	7(3.3%)	13(6.2%)	96(45.7%)	92(43.8%)	4.28	0.741
Project documentation and reporting	5(2.4%)	12(5.7%)	19(9.0%)	98(46.7%)	76(36.2%)	4.09	0.893
Participation in corrective	4(1.9%)	9(4.3%)	17(8.1%)	101(48.1%)	79(37.6%)	4.15	0.836

Statements	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
actions and quality improvements							
Aggregate Mean and Standard Deviation						**4.15**	**0.840**

Source: Field Data (2026)

The findings in Table 23 indicate that stakeholder engagement during project execution was highly practiced, as reflected by the aggregate mean of 4.15 and standard deviation of 0.840. The highest-rated statement was ensuring compliance with construction standards with a mean score of 4.28, followed by engagement in quality control and assurance procedures with a mean of 4.23.

Qualitative findings also supported the quantitative results.

"Continuous engagement of stakeholders during implementation improved coordination and reduced delays in project activities." — Project Engineer

"Community representatives regularly monitored implementation activities and reported concerns related to quality and environmental safety." — Community Leader

"The involvement of government institutions and technical experts helped ensure compliance with construction and sustainability standards." — Government Official

Table 18: Correlation Analysis

Variables	Project Performance
Stakeholder Engagement in Project Execution	Pearson Correlation = 0.781**
	Sig. (2-tailed) = 0.000
	N = 210

Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2026)

The findings in Table 18 above reveal that there was a strong positive and statistically significant relationship between stakeholder engagement during project execution and project performance ($r = 0.781$, $p = 0.000$).

Table 19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.781	0.610	0.608	0.482

Source: Field Data (2026)

The findings in Table 19 above indicate that stakeholder engagement during project execution had a strong positive relationship with project performance as shown by R = 0.781.

Table 20: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	75.245	1	75.245	323.861	0.000
Residual	48.132	208	0.231		
Total	123.377	209			

Source: Field Data (2026)

The ANOVA findings in Table 20 above indicate that the regression model was statistically significant (F = 323.861, p = 0.000).

Table 21: Regression Coefficients

Variables	Unstandardized Coefficients (B)	Std. Error	Beta	t	Sig.
Constant	0.986	0.217		4.543	0.000
Stakeholder Engagement in Project Execution	0.762	0.042	0.781	17.996	0.000

Source: Field Data (2026)

The regression findings in Table 21 above reveal that stakeholder engagement during project execution positively and significantly influenced project performance (β = 0.781, p = 0.000).

Project Performance

Table 22: Descriptive Findings on Project Performance

Project Performance Indicators	SD 1	D 2	N 3	A 4	SA 5	Mean	Std. Dev
Timely completion of the project	5(2.4%)	12(5.7%)	18(8.6%)	96(45.7%)	79(37.6%)	4.10	0.891
Adherence to project budget	8(3.8%)	15(7.1%)	21(10.0%)	94(44.8%)	72(34.3%)	3.98	0.954
Achievement of project scope and objectives	4(1.9%)	10(4.8%)	16(7.6%)	98(46.7%)	82(39.0%)	4.16	0.842
Quality and sustainability of infrastructure	3(1.4%)	8(3.8%)	14(6.7%)	93(44.3%)	92(43.8%)	4.29	0.781
Satisfaction of stakeholders and beneficiaries	5(2.4%)	9(4.3%)	19(9.0%)	101(48.1%)	76(36.2%)	4.11	0.864
Compliance with environmental standards	2(1.0%)	7(3.3%)	11(5.2%)	97(46.2%)	93(44.3%)	4.30	0.742
Effectiveness of risk management	6(2.9%)	13(6.2%)	22(10.5%)	95(45.2%)	74(35.2%)	4.04	0.913
Capacity building and knowledge transfer	7(3.3%)	14(6.7%)	24(11.4%)	96(45.7%)	69(32.9%)	3.98	0.936
Stakeholder commitment to post-project maintenance	5(2.4%)	11(5.2%)	20(9.5%)	102(48.6%)	72(34.3%)	4.07	0.881
Aggregate Mean and Standard Deviation						**4.11**	**0.867**

Source: Field Data (2026)

The findings in Table 22 indicate that respondents generally agreed that the Green City Pilot Project achieved a high level of performance, as shown by the aggregate mean of 4.11 and standard deviation of 0.867. The highest-rated indicator was compliance with environmental standards with a mean score of 4.30, followed by quality and sustainability of infrastructure with a mean of 4.29.

Qualitative findings from interviews and focus group discussions further supported the quantitative results. Respondents emphasized that continuous engagement of stakeholders improved coordination, transparency, and commitment throughout the project lifecycle.

"Stakeholder involvement created ownership among beneficiaries and implementers, which helped the project meet sustainability and environmental goals." — Project Manager

"Regular consultations between community members and project leaders improved trust and reduced implementation conflicts." — Community Representative

"The collaboration between government institutions, donors, and contractors strengthened accountability and improved overall project performance." — Donor Representative

DISCUSSION OF FINDINGS

The findings revealed a strong positive association between stakeholder engagement during project conceptualization and the performance of the Green City Pilot Project ((r=.742,\ p<.05)). This result suggests that stakeholders' participation in defining project objectives, identifying needs, assessing feasibility, and determining priorities was associated with better perceived project performance. Conceptualization is important because decisions made at this stage establish the basis for subsequent planning, resource allocation, and implementation. When stakeholder expectations are considered early, project teams may be better positioned to identify potential disagreements and align project activities with beneficiaries' needs. A relevant comparison is the study by Munezero and Gathiru (2025), which examined stakeholder needs identification and the performance of high-school kitchen construction projects in Kirehe District, Rwanda. The authors reported a strong positive correlation between stakeholder needs identification and project performance ((r=.962)).

The study established a positive and statistically significant association between stakeholder engagement during resource mobilization and project performance ((r=.718,\ p<.05)). This finding indicates that greater stakeholder involvement in resource-related processes was associated with better project performance scores. Resource mobilization involves more than securing finance: it can also involve identifying technical expertise, coordinating institutional contributions, clarifying responsibilities, and ensuring that the resources required for project activities are available and appropriately allocated. Kabeza, Niyonkuru, and Semakula (2024), whose study examined project resource management practices and the performance of the Advancing Citizens Engagement Project funded by Spark Microgrants in Musanze District, Rwanda, provide a relevant comparison. Their research focused on the relationship between resource management practices and project performance using survey, interview, and correlation approaches. The study provides a useful local comparison because it places resource-related management within the performance of a development project.

Stakeholder engagement during project execution recorded the strongest positive correlation with project performance among the three engagement dimensions examined ((r=.781,\ p<.05)). This finding indicates that higher execution-stage engagement scores tended to occur alongside higher project performance scores. Execution involves translating approved plans into activities and deliverables; consequently, stakeholder communication, monitoring, feedback, quality assurance, and timely resolution of implementation challenges may be particularly relevant during this stage. Mukakarisa and Njoroge (2024), who investigated stakeholder engagement and the performance of construction projects at Horizon Construction Company, conducted a related Rwandan study. The authors reported a positive, statistically significant relationship between stakeholder engagement during implementation and project performance.

CONCLUSION

The study concluded that stakeholder engagement had a positive and statistically significant association with the performance of the Green City Pilot Project in Kigali, Rwanda, across all project phases, though the strength of these relationships varied. Engagement during project execution recorded the strongest correlation with project performance ($r = .781$, $p < .05$),

underscoring the vital role of ongoing communication, monitoring, quality assurance, and feedback in resolving implementation challenges. Engagement during conceptualization ranked second ($r = .742$, $p < .05$), highlighting the necessity of involving stakeholders early to define objectives and priorities, while resource mobilization recorded the lowest, yet still significant, positive association ($r = .718$, $p < .05$) regarding financial and technical coordination. Although correlation does not establish direct causality, the findings demonstrate that phase-specific engagement enhances overall coordination, transparency, and accountability, while cautioning that overcoming ongoing challenges—such as communication gaps, conflicting interests, decision delays, and resource constraints—requires clear responsibilities, effective communication channels, and feedback mechanisms throughout the entire project lifecycle.

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REFERENCES

Abu Aisheh, Y. I. (2021). Lessons learned, barriers, and improvement factors for mega building construction projects in developing countries: Review study. *Sustainability, 13*(19).

Abubakar, I., Mohammed, A., & Yusuf, S. (2022). Collaborative governance and infrastructure delivery in African cities. *Journal of Public Administration and Policy Research, 14*(3).

African Development Bank. (2023). *Guidelines for project evaluation and performance monitoring in Africa*. Abidjan: African Development Bank Publications.

African Union Commission. (2022). *African infrastructure development and project performance framework*. Addis Ababa: African Union Commission.

Ahmed, R., & Ali, S. (2021). Stakeholder participation and project planning effectiveness in infrastructure projects. *International Journal of Project Organization and Management, 13*(2).

Bal, A., Njoroge, P., & Mukasa, L. (2023). *Stakeholder engagement and ownership in urban development projects: Evidence from Rwanda. Rwanda Journal of Development Studies*, 7(1).

Bashir, M., Khan, T., & Hussain, A. (2021). Stakeholder interference and implementation delays in public construction projects. *Journal of Construction Engineering and Management, 147*(6).

Botchway, S. (2021). Participatory approaches and sustainability of infrastructure projects in Africa. *African Journal of Management Studies, 7*(1).

Bryman, A. (2023). *Social research methods* (6th ed.). Oxford University Press.

Chang, R. (2023). Measuring project performance beyond the iron triangle: Social and environmental perspectives**.** *Journal of Construction Engineering and Management, 149*(4).

Chen, L., & Taylor, M. (2021). Stakeholder roles in project execution. *Journal of Construction Engineering, 47*(3).

Creswell, J. W. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

El-Gohary, H., & Fathy, A. (2021*). Stakeholder engagement during funding stages and project satisfaction in urban infrastructure projects in Egypt*. *Journal of Urban Development and Planning*, 12(3).

El-Sayed, A., & Hassan, R. (2022). Stakeholder engagement and urban infrastructure performance in Egypt: A quantitative analysis. *Middle East Journal of Construction*, 8(4).

El-Sayed, H., & Hussein, M. (2024). Citizen engagement in quality assurance for urban regeneration in Egypt. *Journal of North African Development*, 10(1).

Emerson, K., & Nabatchi, T. (2023). *Collaborative governance regimes: Advancing theory and practice* (2nd ed.). Washington, DC: Georgetown University Press.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal, 5*(6), 215–217.

Fernandes, J., Silva, A., & Kim, S. (2022). The importance of early stakeholder engagement in project conceptualization. *Project Management Review, 18*(2).

Field, A. (2022). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Freeman, R. E. (2024). *Strategic stakeholder theory: Managing relationships for sustainable project outcomes* (3rd ed.). Oxford University Press.

Garcia, R., Patel, K., & Singh, A. (2022). Mobilizing resources through stakeholder collaboration in infrastructure projects. *Global Development Studies, 14*(4).

Gasana, J., & Niyonsaba, P. (2024). *Stakeholder engagement in resource mobilization for sustainable urban projects: The Green City Pilot Project case*. *Rwanda Journal of Urban Development*, 6(2).

Government of Rwanda. (2022). *National policy on participatory governance and project implementation*. Kigali: Government Printer.

Green City Kigali Project Office. (2024). *Execution-phase stakeholder engagement report: Green City Pilot Project*. Kigali: Green City Kigali Project Office.

Green City Kigali Project Office. (2024). *Project performance monitoring and evaluation report*. Kigali: Green City Kigali Project Office.

Green Climate Fund & Ministry of Environment. (2024). *Assessment report on the Green City Pilot Project in Kigali*. Kigali, Rwanda: Government of Rwanda.

Green Fund Rwanda. (2024). *Green City Kigali: Environmental and Social Impact Assessment (ESIA) final report, Annex 6a*. Green Fund Rwanda. https://greenfund.rw/sites/default/files/2024-09/Annex%206a-%20ESIA%20Final%20Report.pdf

Habimana, J., & Ndayambaje, I. (2024). Participatory planning and sustainable urban development

Iribagiza, A., & Kirabo, J. (2024). Influence of project management practices on

performance of projects in Rwanda. *International Journal of Entrepreneurship and Project Management, 9*(4), 36–54.

Israel, G. D. (2021). *Determining sample size*. University of Florida IFAS Extension.

Johnson, R. B., & Onwuegbuzie, A. J. (2020). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7).

Kabeza, A., Niyonkuru, S., & Semakula, J. (2024). Project resource management practices and performance of the Advancing Citizens Engagement Project funded by Spark Microgrants in Rwanda. *Voice of Research Working Papers*. https://ideas.repec.org/p/vor/issues/2024-49-03.html

Karanja, T., & Nduati, P. (2023). *Continuous stakeholder interaction and project sustainability in East African urban infrastructure projects*. *East African Journal of Project Management*, 6(2).

Kariuki, M., & Wanjiru, F. (2023). Stakeholder integration and project sustainability in East Africa. *Journal of African Development Projects, 11*(2).

Khumalo, T., & van der Merwe, R. (2024). Public-private partnerships and stakeholder alignment in South Africa. *South African Journal of Development*, 16(1).

Kumar, A., & Rahman, M. (2022). *Stakeholder participation and resource mobilization in infrastructure projects in Bangladesh: Challenges and outcomes*. *Journal of Construction and Development Studies*, 18(3).

Kumar, S., & Lee, J. (2021). Innovation through stakeholder engagement in project design. *International Journal of Engineering Management, 33*(4).

Kwizera, F. (2026). Influence of stakeholders' engagement on project performance of the Green Gicumbi Project. *Journal of Research Innovation and Implications in Education, 9*(2), 903 –915.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications.

Liu, Y., Wang, T., & Zhao, X. (2023). Stakeholder involvement and construction quality. *Journal of Civil Engineering, 56*(2).

Lopez, R., & Chang, T. (2024). *Quality assurance and stakeholder participation in urban infrastructure projects in Colombia and Vietnam. International Journal of Urban Studies*, 29(1).

Lyons, T., Smuts, C., & Stephens, R. (2024). Participatory project management for infrastructure development in African cities. *Journal of African Urban Studies, 10*(1).

Mbayo, J., & Tshibanda, R. (2022). *Community leaders and financiers in Central African infrastructure projects: Improving resource allocation efficiency. Central African Journal of Infrastructure*, 4(2).

Mertens, D. M. (2021). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (5th ed.). Sage Publications.

Ministry of Finance and Economic Planning [MINECOFIN], Rwanda. (2022). *Guidelines for effective resource mobilization and public-private collaboration*. Kigali: MINECOFIN.

Ministry of Infrastructure [MININFRA], Rwanda. (2023). *Guidelines for inclusive stakeholder engagement in public infrastructure projects*. Kigali: MININFRA.

Ministry of Infrastructure. (n.d.). *Rwanda to build Africa's first Green City project*. https://www.mininfra.gov.rw/updates/news-details/rwanda-to-build-africas-first-green-city-project

Ministry of Infrastructure. (n.d.). Urbanisation, human settlement and housing development. https://www.mininfra.gov.rw/1/urbanisation-human-settlement-and-housing-development

Ministry of Local Government (MINALOC). (2023). *Urban development and participatory planning strategies*. Kigali: Government Printer.

Moyo, T., & Chikodzi, D. (2023). *Meta-analysis of stakeholder engagement and urban renewal projects in Africa. African Journal of Project Management*, 8(3).

Mwangi, P., & Kihoro, J. (2023). Stakeholder participation and project implementation in Kenya's construction sector. *International Journal of Social Sciences and Management Research, 9*(4).

Namara, R., Okello, D., & Nsubuga, A. (2024). Stakeholder consultation in East African infrastructure development. *East African Development Review, 7*(1).

Ncube, T., & Dlamini, P. (2023). *Stakeholder engagement and resource mobilization in African urban infrastructure projects: Southern and eastern Africa perspective. African Journal of Project Development*, 7(3).

Niyonsenga, F., & Habimana, J. (2024). *Urban development projects and stakeholder engagement in Rwanda: Resource mobilization outcomes from the Green City Pilot Project*. *Rwanda Journal of Development Studies*, 7(2).

Niyonzima, G., Ndahiro, P., & Uwimana, S. (2024). Challenges in stakeholder engagement in Rwanda's urban projects. *Rwanda Development Journal, 9*(1).

Nsimba, K., & Kalala, R. (2021). *Participatory site inspections and execution-phase performance in road projects in the Democratic Republic of Congo*. *Central African Journal of Infrastructure*, 4(2).

Nsimba, K., Lumumba, D., & Kabila, R. (2023). *Community cooperation and protests in infrastructure projects in the Democratic Republic of Congo: Case studies and surveys*. *Central African Journal of Infrastructure*, 3(1).

Nsimba, K., Ntumba, J., & Lema, P. (2023). Community cooperation and infrastructure projects in DR Congo. *Central African Journal of Infrastructure*, 7(2).

Nyandoro, T., & Moyo, L. (2024). *Trust and participation in urban development projects: Lessons from East Africa*. African Journal of Project and Development Studies, 9(1).

Nziyumvira, I. L., & Amolo, E. J. A. (2025). Stakeholder engagement strategies and road construction project performance. International Journal of Finance & Banking Studies, 14(1), 68–78.

O'Neill, B., Roberts, C., & Smith, D. (2023). *Stakeholder participation in urban development resource mobilization: Insights from Australian projects*. *Journal of Urban Planning and Finance*, 14(2).

Ogawa, T. (2024). Resource mobilization and stakeholder participation in African urban development projects. *African Journal of Infrastructure Development, 6*(1).

Okello, M., Namusonge, G., & Kirui, D. (2023). Donor-government partnerships in East African projects. *Journal of Development Partnerships, 6*(1).

Otieno, F., & Mwangi, S. (2023). Environmental sustainability through participatory design in Kenya. *Kenyan Journal of Environmental Studies, 15*(4).

Patel, R., & Chandra, S. (2023). *Early stakeholder engagement and water infrastructure project success in India. International Journal of Water Resources Development*, 39(3).

Patton, M. Q. (2021). *Qualitative research & evaluation methods* (4th ed.). Sage Publications.

Peterson, M., & Wang, Y. (2023). *Stakeholder quality assurance committees and execution-phase performance in Canada and Australia*. *Journal of Construction Management and Finance*, 14(3).

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper & Row.

Pinto, J., & Slevin, D. (2020). Dimensions of project performance: Beyond the triple constraint. *Project Management Journal, 51*(1).

Project Management Institute [PMI]. (2021). *A guide to the project management body of knowledge (PMBOK guide)* (7th ed.). Newtown Square, PA: PMI.

Republic of Rwanda. (2020). *Vision 2050*. Government of Rwanda.

Rwanda Development Board [RDB]. (2023). *Stakeholder engagement strategies for project funding and implementation in Rwanda*. Kigali: RDB.

Rwanda Environmental Management Authority (REMA). (2021). *Sustainable urban development guidelines*. Kigali, Rwanda: REMA.

Rwanda Environmental Management Authority [REMA]. (2023). *Participatory monitoring and compliance in urban development projects*. Kigali: REMA.

Rwanda Housing Authority. (n.d.). Overview. https://www.rha.gov.rw/about-rha/overview

Smith, R., Thompson, G., & Walker, H. (2022). *Urban regeneration projects in the UK: The role of stakeholder engagement in public acceptance and legal compliance*. *Journal of Urban Affairs*, 44(1).

Tadesse, G., & Alemu, F. (2023). Anonymity and confidentiality in research: Safeguarding vulnerable populations in Ethiopia. *Journal of Ethics in Research*, 10(3).

Taherdoost, H. (2021). Data collection methods and tools for research; A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM), 10*(1).

Taherdoost, H. (2022). *Determining sample size: How to calculate survey sample size*. *International Journal of Academic Research in Management*, 11(1).

Turner, J. R., & Müller, R. (2021). *Project-oriented leadership* (3rd ed.). Routledge.

Turner, R., & Müller, R. (2021). The evolution of project performance criteria. *International Journal of Managing Projects in Business, 14*(2).

UN-Habitat. (2023). *Urban development performance framework: Global guidance for sustainable cities*. Nairobi: United Nations Human Settlements Program.

United Nations Development Program (UNDP). (2020). *Stakeholder participation and inclusive development in African infrastructure projects*. UNDP Regional Bureau for Africa.

United Nations Human Settlements Programme (UN-Habitat). (2023). *Enabling meaningful public participation in spatial planning processes*. https://unhabitat.org/enabling-meaningful-public-participation-in-spatial-planning-processes

Uwimana, J., & Ndikumana, A. (2023). *Stakeholder engagement and urban development project performance in Rwanda: The Green City Pilot Project experience*. *Rwanda Journal of Development Studies*, 6(2).

Uwizeyimana, D., & Mugisha, A. (2024). Resource mobilization and sustainability of green infrastructure projects in Rwanda. *Rwanda Journal of Sustainable Development, 5*(2).

Wambui, L., & Kamau, P. (2024). *Stakeholder engagement during infrastructure project conceptualization in Kenya: Regional insights*. *East African Journal of Project Management*, 10(1).

Wambui, P., & Kamau, J. (2024). Community engagement and service delivery in Kenyan water projects. *African Water Journal, 9*(1).

Williams, K., Smith, H., & Brown, T. (2023). Sustaining project performance through stakeholder collaboration. *Global Project Management Review, 20*(3).

World Bank. (2022). *Stakeholder engagement in infrastructure projects: Best practices and policy guidance*. Washington, DC: World Bank Publications.

World Bank. (2023). *Global infrastructure performance review 2023: Stakeholder engagement and sustainability*. Washington, DC: World Bank.

World Bank. (2025). *Second Rwanda Urban Development Project (P165017): Implementation status & results report*. World Bank.

Wu, S.-W., Yan, Y., Pan, J., & Wu, K.-S. (2023). Linking sustainable project management with construction project performance: Moderating influence of stakeholder engagement**.** *Buildings, 13*(10).

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York, NY: Harper & Row.

Yu, W.-d., Cheng, S.-t., Ho, W.-c., & Chang, Y.-h. (2018). Measuring the sustainability of construction projects throughout their lifecycle: A Taiwan lesson. *Sustainability, 10*(5).