Impact of Stakeholder Engagement on the Success of Water, Sanitation, and Hygiene Projects in Babati, Tanzania

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Abstract

This study investigates the impact of stakeholder engagement on the success and sustainability of donor-funded Water, Sanitation, and Hygiene (WASH) projects in Babati District, Tanzania. The research adopted a pragmatic approach, employing a mixed-methods design that combines quantitative and qualitative data collection techniques. Key aspects of stakeholder engagement examined include involvement of local communities, alignment with community needs, integration of diverse perspectives, active participation, and capacity-building efforts. The findings revealed that impactful stakeholder input and active participation significantly enhance project success, fostering community ownership and relevance. However, challenges such as ineffective capacity-building initiatives and difficulties in managing diverse perspectives can hinder outcomes if not strategically addressed. The study concludes that successful WASH projects require structured frameworks for stakeholder engagement, effective communication and feedback mechanisms, and context-specific capacity-building programs. Recommendations emphasize the need for inclusive decision-making processes and conflict-resolution strategies to balance diverse stakeholder interests while maintaining efficiency.

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1. Introduction

Stakeholder engagement has emerged as a critical factor in the success and sustainability of donor-funded Water, Sanitation, and Hygiene (WASH) projects. Historically, these projects adopted a top-down approach where decisions were made by external agencies without substantial input from the intended beneficiaries. This method often led to outcomes that were disconnected from local needs, resulting in inefficiencies and unsustainable projects (Brouwer et al., 2020; Kogels, 2021). Recognizing these challenges, development practitioners began advocating for participatory approaches that encourage local ownership and better align projects with community needs (Arnstein, 1969; Pretty, 1995). The success of these approaches in WASH interventions has been supported by evidence showing improved outcomes when communities are involved (Gonzalez et al., 2023; O'Connell et al., 2022).

In rural areas like Babati District, Tanzania, the importance of sustainable WASH projects cannot be overstated. Access to clean water and proper sanitation directly impacts public health and economic development. The World Health Organization (WHO, 2022) reports that approximately 4.2 million Tanzanians lack access to safe drinking water, leading to preventable diseases and compromised quality of life. Despite these pressing needs, many donor-funded WASH projects face challenges related to sustainability and community ownership. Local communities often feel excluded from decision-making processes, which undermines their commitment to maintaining the infrastructure and services provided (Mchenga, 2020; Lema, 2023; Kitole et al., 2023).

Effective stakeholder engagement in WASH projects involves participation from community members, local government agencies, and NGOs. This collaborative approach ensures that projects reflect local priorities and foster a sense of ownership among stakeholders. Studies indicate that WASH projects incorporating community engagement from the planning stages achieve higher success rates and produce more sustainable outcomes (Mohammed et al., 2023; Sultana et al., 2021; Kitole & Genda, 2024). Engagement strategies, including information dissemination, consultation, and collaborative decision-making, contribute to identifying community needs, building trust, and enhancing project implementation (Hussain et al., 2022; Utouh & Kitole, 2024; Omer, 2022).

Despite growing recognition of stakeholder engagement's importance, gaps remain in understanding its specific impacts within localized contexts like Babati District. While existing literature broadly supports participatory approaches, it often fails to address socio-cultural factors influencing engagement levels (Kassam et al., 2023; Patterson et al., 2021). Additionally, limited research explores the effectiveness of different engagement strategies on project sustainability, leaving a need for context-specific analyses (Van de Ven et al., 2022; Kitole & Utouh, 2023). Addressing these gaps is essential for developing strategies that improve the effectiveness and longevity of donor-funded WASH projects.

The primary problem facing WASH projects in Babati District is the lack of sufficient stakeholder engagement, which undermines their long-term viability. Limited

community involvement results in higher project failure rates and diminished outcomes (O'Connell et al., 2022). Inadequate engagement leads to underutilized infrastructure, persistent health issues, and a disconnect between project goals and community needs (Gonzalez et al., 2023; Ruggeri et al., 2022; Kitole et al., 2023). By examining the impacts of stakeholder engagement strategies, this research aims to identify approaches that enhance project design and implementation, ensuring improved health outcomes and community well-being.

This study is guided by several objectives. The general objective is to assess the effect of stakeholder engagement on the sustainability and ownership of donor-funded WASH projects in Babati District. The specific objectives include examining the impact of stakeholder engagement in planning, execution, and decision-making processes on project success. To achieve these objectives, the study addresses key research questions concerning how different engagement strategies influence project outcomes. These insights are crucial for informing future WASH initiatives and ensuring their long-term effectiveness and sustainability (Utouh & Kitole, 2024; Kassam et al., 2023;).

The significance of this study lies in its potential contributions to community development, policy, academic knowledge, and research methodology. Practically, it offers insights that enhance the sustainability of WASH projects, improving public health and quality of life. Policymakers and project managers can use the findings to design interventions that better align with community needs and promote long-term success. Academically, the study addresses gaps in literature related to stakeholder engagement and project sustainability, providing empirical evidence that enriches understanding in this field. Methodologically, it offers practical approaches for evaluating stakeholder engagement, contributing to broader development research frameworks.

2. Theoretical framework

The core theoretical foundation for this study is Stakeholder Theory, developed by R. Edward Freeman in 1984. This theory posits that organizations should consider the interests and concerns of all stakeholders — individuals or groups who are affected by or can influence the organization's activities — rather than focusing solely on financial performance. In the context of Water, Sanitation, and Hygiene (WASH) projects, Stakeholder Theory underscores the importance of engaging diverse stakeholder groups, including local communities, donors, government agencies, and non-governmental organizations (Freeman, 1984). Effective engagement ensures that projects are sustainable, aligned with local needs, and capable of delivering long-term benefits.

Stakeholder Theory provides a comprehensive framework for analyzing how stakeholder involvement in various phases of a project — including planning, execution, and decision-making — affects project outcomes. By applying this theory, the study explores the extent to which balanced and inclusive stakeholder interactions contribute to the success and sustainability of donor-funded WASH projects. The theory emphasizes the need for continuous communication, trust-building, and collaboration, ensuring that the interests of all stakeholders are adequately addressed

(Freeman, 1984). This is particularly relevant in rural contexts, such as Babati District, where local ownership and participation are crucial for the long-term success of WASH initiatives.

A key strength of Stakeholder Theory is its ability to provide a holistic view of stakeholder dynamics. It helps identify the roles, responsibilities, and potential contributions of different stakeholders, offering insights into how their interactions influence project implementation and outcomes. This perspective aligns well with the study's objective of assessing the impact of stakeholder engagement on project success and sustainability (Freeman, 1984). By acknowledging the interdependence of stakeholders, the theory supports strategies that foster mutual benefit, community trust, and ownership.

However, Stakeholder Theory is not without limitations. Its broad applicability can create challenges in prioritizing stakeholder needs, especially when conflicting interests arise. The theory does not always provide clear, actionable guidelines for managing these conflicts and achieving balanced engagement (Freeman, 1984). To address these limitations, the study incorporates Resource Dependency Theory, developed by Pfeffer and Salancik in 1978. This complementary theory focuses on the management of relationships and the strategic allocation of resources, helping to mitigate conflicts and optimize stakeholder contributions.

Resource Dependency Theory enhances the practical application of Stakeholder Theory by emphasizing how organizations can strategically manage stakeholder relationships to secure the resources necessary for project success. By understanding the dependencies between stakeholders and the project, this theory offers practical insights for developing effective engagement strategies and ensuring that resource flows support long-term project sustainability (Pfeffer & Salancik, 1978). This integration addresses the gaps in Stakeholder Theory and provides a more nuanced approach to stakeholder management in donor-funded WASH projects.

In conclusion, Stakeholder Theory serves as the primary theoretical framework for this study due to its relevance to stakeholder engagement and its comprehensive approach to stakeholder dynamics. The inclusion of Resource Dependency Theory offers a practical dimension to stakeholder management, addressing the limitations of Stakeholder Theory and enhancing the study's capacity to propose effective, sustainable strategies for WASH project success. Together, these theories provide a robust foundation for understanding and improving stakeholder engagement practices in development projects.

2.1 Empirical review

mpirical evidence underscores the critical role of stakeholder engagement in the planning phases of WASH projects. Studies have shown that involving stakeholders early in the planning process leads to greater sustainability and effectiveness. For instance, a 2023 study by Kumeh et al. revealed that early stakeholder engagement ensures projects are aligned with community needs, thereby enhancing outcomes. This is supported by Mabuza and Nkosi (2022), who found that incorporating local perspectives in South African WASH projects significantly increased community support and project relevance, highlighting the universal benefits of participatory planning.

Research across the African continent supports these findings, emphasizing that stakeholder engagement during planning directly impacts project effectiveness and community acceptance. Chikozho and Senzangakhona (2022) demonstrated that stakeholder input in the early stages of WASH projects enhances project design and promotes local ownership. Despite these positive outcomes, the need for more localized studies remains, particularly in understanding best practices for stakeholder integration within specific regional contexts.

In the case of Babati District, Tanzania, preliminary research indicates that involving local stakeholders in the planning phase improves project outcomes. Early participation has shown to enhance implementation and community ownership. However, gaps remain regarding which specific strategies and practices are most effective for this context (Kumeh et al., 2023; Mabuza & Nkosi, 2022; Chikozho & Senzangakhona, 2022). Further research is necessary to fill these gaps and provide tailored recommendations for optimizing stakeholder engagement in Babati's WASH projects.

Stakeholder engagement during the execution phase of WASH projects has also been found to significantly enhance project success. Mwita and Kisima (2021) revealed that in Tanzania, involving stakeholders during execution improved project efficiency and adaptability to implementation challenges. This finding is reinforced by Rukundo and Masanja (2022), who noted that stakeholder engagement fosters accountability and ensures stakeholders are actively involved in decision-making and problem-solving during execution.

Evidence from other African countries mirrors these findings. A 2022 study by Kamau and Njoroge demonstrated that stakeholder involvement during execution in countries such as Kenya and Uganda enabled project activities to be adjusted to better meet local needs. This adaptability resulted in enhanced project outcomes and stronger community support (Kamau & Njoroge, 2022). These studies highlight the importance of maintaining stakeholder participation throughout the execution phase to address challenges and enhance effectiveness.

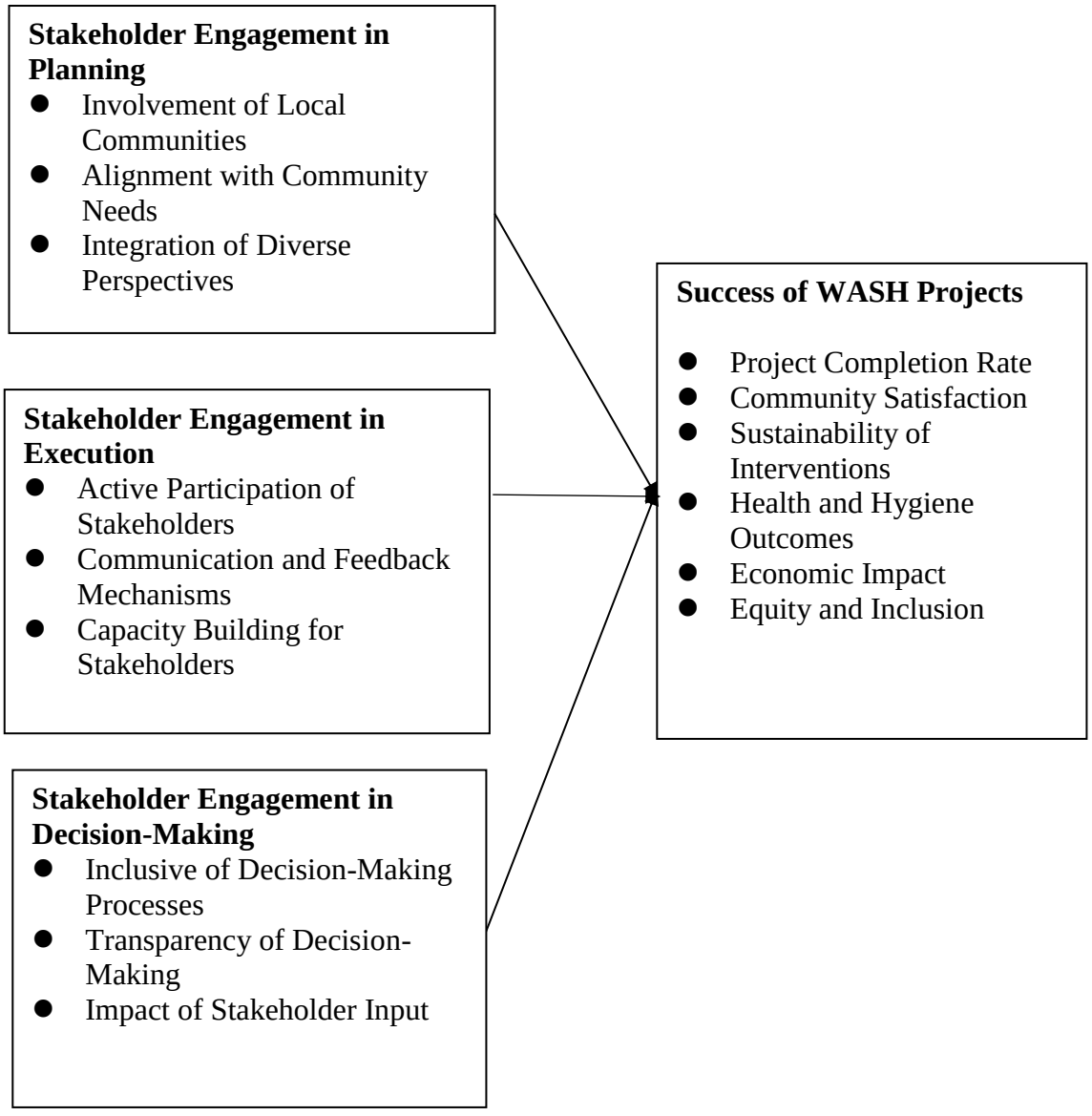
In Babati District, the benefits of stakeholder engagement during execution are becoming increasingly clear. Preliminary observations suggest that projects with active involvement during execution achieve better problem resolution and project adaptation. However, challenges such as limited resources and stakeholder conflicts hinder effective participation (Mwita & Kisima, 2021; Rukundo & Masanja, 2022). Addressing these barriers through targeted strategies and research is essential for optimizing stakeholder engagement in the execution of WASH projects in Babati.

Stakeholder engagement in decision-making processes is pivotal for the success and sustainability of WASH projects. Mabuza and Nkosi (2022) found that involving stakeholders in decision-making enhances the quality of decisions and promotes community ownership, leading to sustained project benefits. Rukundo and Masanja (2022) similarly observed that inclusive decision-making processes improve project relevance and effectiveness by incorporating stakeholder input.

Despite the recognized benefits of stakeholder involvement in decision-making, challenges persist. In contexts like Kenya and Uganda, stakeholders often encounter barriers to equitable participation, limiting the effectiveness of their contributions

(Kamau & Njoroge, 2022). In Babati District, while stakeholder engagement in decision-making has shown potential for improving project outcomes, issues related to inclusivity and the effectiveness of these processes remain (Mwita & Kisima, 2021). Further research is necessary to develop strategies that ensure meaningful and inclusive stakeholder participation, ultimately enhancing the success and sustainability of WASH projects (Mabuza & Nkosi, 2022; Mwita & Kisima, 2021).

Figure 1: Conceptual Framework



Source: Researcher (2024)

3. Methodology

The study adopted a pragmatic research philosophy due to its flexibility in addressing real-world problems, allowing for the integration of both qualitative and quantitative methods (Saunders et al., 2019). This mixed-methods approach provided a comprehensive understanding by capturing numerical data to measure stakeholder engagement levels and qualitative insights into stakeholder perceptions and

experiences. The research design was descriptive, chosen for its effectiveness in examining relationships and understanding the dynamics of stakeholder engagement without manipulating variables (Creswell, 2014). Descriptive design facilitated the collection of detailed information, ensuring the study's objectives and research questions were thoroughly addressed.

The study was conducted in Babati District, Manyara Region, a region facing significant challenges in WASH services. The population included 275 stakeholders comprising project managers, field workers, community leaders, community members, and other key stakeholders. A sample size of 163 participants was determined using Yamane's (1967) formula to ensure statistical representativeness. Data collection employed structured questionnaires for quantitative data and semi-structured interviews and focus group discussions (FGDs) for qualitative data. Quantitative data measured participation levels, satisfaction, and perceived impacts, while qualitative methods provided deeper insights into stakeholder experiences and challenges. The instruments were designed to ensure validity, reliability, and consistency, with pilot testing conducted to refine them before full deployment (Kothari, 2004).

For data analysis, quantitative data were processed using SPSS for descriptive and inferential statistics, including frequencies, means, and regression analysis to identify patterns and correlations. Qualitative data were analyzed using thematic analysis, supported by NVivo software, to identify recurring themes and insights related to stakeholder engagement. Ethical considerations were meticulously followed, ensuring informed consent, confidentiality, and participant anonymity. Ethical approval was obtained from the relevant institutional review board, ensuring the research adhered to ethical standards and protected participant rights throughout the study (Creswell, 2014; Saunders et al., 2019).

4. Results

Respondents' characteristics

The data in the table categorizes respondents into three age groups: Under 30, 30-40, and Over 40. Among the 163 respondents, the largest proportion, 38.7% (63 respondents), are over 40 years of age. This suggests that a significant portion of participants are middle-aged or older, potentially reflecting the involvement of experienced individuals in WASH projects. The second-largest group, comprising 33.7% (55 respondents), falls within the 30-40 age range, indicating that individuals in their prime working years are actively engaged in these projects. The smallest group, 27.6% (45 respondents), consists of those under 30, highlighting a comparatively lower participation rate of younger individuals. This distribution could suggest that while youth are involved in WASH projects, more effort may be needed to encourage greater participation from younger demographics.

When analyzing the educational level of respondents, it becomes clear that the majority have completed either primary or secondary education. Specifically, 36.8% (60 respondents) have attained secondary education, representing the largest educational category. Close behind, 33.7% (55 respondents) have achieved primary education, showing that a significant portion of the participants possess foundational education levels. In contrast, 15.3% (25 respondents) have no formal education, which

may impact their ability to fully engage in or benefit from WASH projects. Meanwhile, only 14.1% (23 respondents) have tertiary education, reflecting a smaller proportion of highly educated participants. This distribution suggests that the community primarily consists of individuals with basic education levels, which could influence how information, training, and engagement strategies are designed and delivered.

Table 1: Respondents characteristics

Age Group (Years)	**Frequency (N)**	**Percentage (%)**
Under 30	45	27.6
30 – 40	55	33.7
Over 40	63	38.7
Total	**163**	**100**
Educational Level		
No Formal Education	25	15.3
Primary Education	55	33.7
Secondary Education	60	36.8
Tertiary Education	23	14.1
Total	**163**	**100**

Source: Field data (2024)

The intersection between age and educational level may provide further insights. The higher proportion of respondents over 40 years old likely correlates with those who have lower levels of formal education, as older generations may have had fewer educational opportunities. Conversely, the younger respondents, particularly those under 30, may be more likely to possess secondary or tertiary education, reflecting improvements in educational access over time. This relationship can influence how different age groups engage with WASH projects, with younger, more educated participants possibly contributing through innovative ideas and technical knowledge, while older participants bring practical experience and community insights.

These demographic characteristics have important implications for the design and implementation of WASH projects. The prevalence of respondents with primary and secondary education suggests that communication strategies should be straightforward and accessible, avoiding overly technical language. The involvement of a significant number of older participants highlights the need to leverage their experience and community knowledge in stakeholder engagement processes. Additionally, the relatively lower participation of respondents with no formal education and those under 30 suggests a need for targeted efforts to enhance inclusion and capacity-building for these groups. By addressing these demographic factors, WASH projects can improve their effectiveness, ensuring that stakeholder engagement is both inclusive and reflective of the community's needs and capabilities.

Stakeholder engagement in planning process on the success of Water, Sanitation, and Hygiene (Wash) Projects.

The Involvement of Local Communities variable has a sum of 699 and a mean score of 4.31. This high mean indicates that respondents generally agree that local communities are actively involved in WASH projects. The standard deviation (0.845) shows moderate variability around the mean, suggesting that while most responses are clustered near the average, there is still some variation in the perceived level of involvement. The negative skewness (-1.904) indicates that responses are skewed toward higher values, meaning more participants reported high levels of community involvement. The kurtosis (5.178) indicates a sharp peak in the distribution, suggesting that responses are highly concentrated around specific values, reflecting consistency in the perception of community involvement.

The Alignment with Community Needs variable also has a sum of 703 and a mean of 4.31, identical to the previous metric. This suggests that stakeholders perceive WASH projects as being well-aligned with the community's requirements. The standard deviation (0.843) indicates similar variability to that of community involvement, reinforcing the idea that most respondents hold consistent views regarding alignment. The skewness (-1.900) reflects a skew toward higher scores, meaning most participants believe the projects meet community needs effectively. The kurtosis (5.195) further indicates a peaked distribution, showing strong agreement among respondents about the alignment of WASH projects with community needs.

Table 2: Descriptive Statistics on Stakeholder Engagement

	Range	Sum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Involvement of Local Communities	4	699	4.31	.066	.845	.714	-1.904	.191	5.178	.379
Alignment with Community Needs	4	703	4.31	.066	.843	.710	-1.900	.190	5.195	.378
Integration of Diverse Perspectives	4	677	4.15	.069	.879	.773	-1.851	.190	4.870	.378
Valid N (listwise)										

Source: Field data (2024)

Table 3: Correlation on Stakeholder Engagement in the Planning Process

		Involvement of Local Communities	Alignment with Community Needs	Integration of Diverse Perspectives
Involvement of Local Communities	Pearson Correlation	1	.841**	.862**
	Sig. (2-tailed)		.000	.000
	N	162	162	162
Alignment with Community Needs	Pearson Correlation	.841**	1	.810**
	Sig. (2-tailed)	.000		.000
	N	162	163	163
Integration of Diverse Perspectives	Pearson Correlation	.862**	.810**	1
	Sig. (2-tailed)	.000	.000	
	N	162	163	163

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

Source: Field data (2024)

The Integration of Diverse Perspectives variable has a sum of 677 and a mean of 4.15, which, while still high, is slightly lower than the other two variables. This suggests that while diverse stakeholder perspectives are considered, there may be slightly more room for improvement in this area. The standard deviation (0.879) shows slightly higher variability compared to the other two variables, indicating greater dispersion in opinions. The negative skewness (-1.851) means responses are still skewed toward higher values, but to a slightly lesser extent. The kurtosis (4.870) shows a peaked distribution, indicating that most respondents agree on the integration of diverse perspectives, though with slightly less consistency compared to community involvement and alignment with needs.

These descriptive statistics highlight that stakeholder engagement in WASH projects, including community involvement, alignment with needs, and integration of perspectives, is generally perceived positively by respondents. The consistently high means across the three variables reflect effective engagement practices, while the moderate standard deviations suggest some variability that should be addressed to ensure uniform engagement. The negative skewness across all three metrics shows that high scores dominate, indicating a positive perception overall. The high kurtosis values suggest that while most participants agree, their responses are tightly clustered around the high scores, reinforcing the reliability of these findings. These insights suggest that future efforts should maintain strong community involvement while focusing on enhancing the integration of diverse stakeholder perspectives to further improve project outcomes.

Table 4: Descriptive Statistics for Variation Perceive Decision Making in WASH.

		Inclusiveness in Decision-Making Processes	Transparency of Decision-Making	Impact of Stakeholder Input
Inclusiveness in Decision-Making Processes	Pearson Correlation	1	.209**	.335**
	Sig. (2-tailed)		.007	.000
	N	163	163	163
Transparency of Decision-Making	Pearson Correlation	.209**	1	.388**
	Sig. (2-tailed)	.007		.000
	N	163	163	163
Impact of Stakeholder Input	Pearson Correlation	.335**	.388**	1
	Sig. (2-tailed)	.000	.000	
	N	163	163	163

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

The table provides the Pearson correlation coefficients between three key variables related to decision-making in WASH projects: Inclusiveness in Decision-Making Processes, Transparency of Decision-Making, and Impact of Stakeholder Input. All the correlations are statistically significant at the 0.01 level (2-tailed), indicating meaningful relationships between these variables. The sample size for all correlations is 163, ensuring that the results are reliable and representative. The Pearson correlation coefficient between Inclusiveness in Decision-Making Processes and Transparency of Decision-Making is 0.209. This positive correlation, though moderate, suggests that

when decision-making processes are more inclusive, they tend to be perceived as more transparent. The p-value (.007) confirms the statistical significance of this relationship. This implies that involving diverse stakeholders in decision-making processes can enhance transparency, fostering trust and openness in WASH project implementation.

The correlation between Inclusiveness in Decision-Making Processes and Impact of Stakeholder Input is 0.335, indicating a moderate positive relationship. The p-value (.000) confirms the significance of this correlation. This suggests that when decision-making processes are inclusive, stakeholders' contributions are more likely to have a meaningful impact on project outcomes. This reinforces the importance of ensuring that a wide range of stakeholders are actively involved in decision-making to maximize the effectiveness and relevance of WASH projects. The Pearson correlation coefficient between Transparency of Decision-Making and Impact of Stakeholder Input is 0.388, the strongest correlation in the table. This moderate-to-strong positive correlation indicates that greater transparency in decision-making is associated with a higher perceived impact of stakeholder input. The p-value (.000) confirms the statistical significance of this relationship. These finding highlights that when decision-making processes are transparent, stakeholders feel their input is valued and influential, which can enhance engagement and support for WASH projects.

The correlations in this table demonstrate that inclusiveness and transparency in decision-making processes are essential for ensuring that stakeholder input has a meaningful impact on WASH project outcomes. While the correlations are moderate, their statistical significance underscores the importance of adopting inclusive and transparent decision-making practices. These practices can build trust, encourage participation, and ultimately lead to more effective and sustainable WASH interventions. To improve project success, project managers should focus on enhancing both inclusiveness and transparency in their decision-making processes.

Table 5: Multiple regression for stakeholder engagement in planning.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.725[a]	.526	.498	.692

a. Predictors: (Constant), Stakeholder Engagement in Planning, Stakeholder Engagement in Execution, Stakeholder Engagement in Decision-Making

Source: Field data (2024)

Determinants for the success of WASH projects

The multiple regression model presented in Table 6 evaluates various factors influencing the success of WASH (Water, Sanitation, and Hygiene) projects. The constant (2.123) represents the baseline success of WASH projects when all predictors are held at zero. The significant t-value (5.376, p = .000) for the constant suggests that the model effectively captures baseline success levels. The table highlights several key predictors, with their respective coefficients, standard errors, and significance levels indicating how each factor contributes to project success. The p-values help determine the statistical significance of each predictor, with values less than 0.05 indicating a significant effect.

Among the predictors, "Impact of Stakeholder Input" emerges as the strongest determinant of WASH project success, with an unstandardized coefficient of 0.598 and a highly significant p-value (.000). This suggests that when stakeholder input is impactful, project success increases substantially. Similarly, "Active Participation of Stakeholders" has a positive coefficient of 0.300 and a p-value of 0.011, indicating that active stakeholder involvement significantly enhances project outcomes. These findings underscore the importance of engaging stakeholders meaningfully and ensuring that their input is considered and utilized effectively in project execution.

Table 6: Determinants for the Success of WASH Project

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.123	.395		5.376	.000
	Involvement of Local Communities	-.316	.204	-.273	-1.547	.124
	Alignment with Community Needs	.255	.137	.209	1.853	.066
	Integration of Diverse Perspectives	-.383	.193	-.332	-1.990	.048
	Active Participation of Stakeholders	.300	.116	.305	2.573	.011
	Communication and Feedback Mechanisms	.269	.144	.222	1.867	.064
	Capacity Building for Stakeholders	-.207	.074	-.213	-2.807	.006
	Inclusiveness in Decision-Making Processes	.012	.104	.010	.112	.911
	Transparency of Decision-Making	-.023	.065	-.024	-.358	.721
	Impact of Stakeholder Input	.598	.062	.738	9.714	.000

a. Dependent Variable: Success of WASH Projects

Source: Field data (2024)

Several predictors show positive effects that are close to statistical significance. "Alignment with Community Needs" has a coefficient of 0.255 and a p-value of 0.066, suggesting that aligning projects with community needs positively influences success, although the relationship is marginally significant. Similarly, "Communication and Feedback Mechanisms" has a coefficient of 0.269 and a p-value of 0.064, indicating that effective communication and feedback processes can contribute to project success, albeit with borderline significance. These results imply that while these factors are important, their influence may vary depending on the context or the specific dynamics of the WASH projects.

Interestingly, some factors exhibit negative relationships with WASH project success. "Integration of Diverse Perspectives" shows a negative coefficient of -0.383 with a p-value of 0.048, indicating that, in some cases, integrating diverse perspectives may hinder project success, potentially due to conflicting interests or difficulties in achieving consensus. Additionally, "Capacity Building for Stakeholders" has a

negative coefficient of -0.207 and a significant p-value of 0.006, suggesting that certain capacity-building efforts might not always lead to positive outcomes, possibly due to inadequate training programs or mismatches between training content and project needs. These negative relationships highlight the need for careful management and strategic implementation of these factors.

Some variables in the model did not show significant effects on WASH project success. "Involvement of Local Communities" has a negative coefficient of -0.316 and a p-value of 0.124, suggesting that local community involvement alone may not always drive success unless combined with other factors. Similarly, "Inclusiveness in Decision-Making Processes" and "Transparency of Decision-Making" have very low coefficients (0.012 and -0.023, respectively) and high p-values (0.911 and 0.721), indicating no significant relationship with project success. These findings suggest that while inclusiveness and transparency are essential principles, they may not directly influence outcomes unless effectively operationalized within the project framework.

6. Discussion

The findings underscore the critical role of stakeholder engagement in the success and sustainability of WASH projects. Meaningful engagement, particularly in terms of impactful stakeholder input and active participation, significantly enhances project outcomes. When stakeholders are actively involved in decision-making and implementation, projects are more likely to align with the actual needs of the community. This fosters a sense of ownership and commitment, which increases the likelihood of long-term success. Research by Hussain, Khan, and Malik (2022) supports this, highlighting that community engagement ensures interventions are contextually relevant and widely accepted. Furthermore, Gonzalez and Agha (2023) emphasize that promoting local ownership through active stakeholder involvement leads to more sustainable and effective project outcomes, particularly in Sub-Saharan African contexts.

However, the process of integrating diverse stakeholder perspectives can be challenging and, in some cases, counterproductive if not managed effectively. Differences in socio-cultural backgrounds, priorities, and interests can create conflicts, complicating project execution and causing delays. Patterson, Tabb, and Yang (2021) point out that socio-cultural factors can hinder engagement efforts, especially when diverse viewpoints are not harmonized effectively. Similarly, Brouwer and Van de Ven (2020) caution that while participatory approaches are essential, they require careful coordination to prevent inefficiencies. This suggests that although inclusivity is valuable, project managers must strategically balance diverse perspectives to ensure the process remains efficient and productive.

Capacity-building efforts also present unique challenges. While training and skill development are generally beneficial, poorly designed capacity-building initiatives may fail to address the real needs of stakeholders. When training programs do not match the skill levels or practical requirements of the community, they can lead to frustration and disengagement. Mohammed and Muntaka (2023) argue that capacity-building efforts must be context-specific and relevant to the immediate needs of the stakeholders to be effective. Additionally, Ruggeri, Cilliers, and Flanagan (2022) suggest that capacity-building programs need to be continuous and adaptive, ensuring

that stakeholders feel empowered and capable of contributing meaningfully to project success.

The alignment of projects with community needs and the establishment of clear communication and feedback mechanisms are also vital for success, although their impacts may sometimes be subtle. Effective alignment ensures that projects address real community challenges, making them more relevant and accepted by beneficiaries. Sultana, Khan, and Rahman (2021) highlight that aligning projects with community priorities fosters trust and cooperation, which are essential for long-term sustainability. Similarly, robust communication and feedback mechanisms help build transparency and accountability, encouraging ongoing dialogue between project managers and stakeholders. This ongoing interaction allows for adjustments based on feedback, ensuring that projects remain on track and responsive to community needs. Van de Ven and Brouwer (2022) emphasize that continuous feedback and communication are crucial for maintaining stakeholder engagement throughout the project lifecycle.

Generally, the success of WASH projects is closely tied to how effectively stakeholders are engaged. Active participation, meaningful input, and tailored capacity-building efforts can significantly enhance outcomes. However, challenges related to integrating diverse perspectives and providing relevant training must be managed strategically. By promoting alignment with community needs and establishing clear communication channels, WASH projects can achieve greater effectiveness and long-term sustainability. These findings highlight the importance of adopting a holistic and adaptive approach to stakeholder engagement to address the complexities and nuances of real-world project implementation.

7. Conclusion

This study highlights the pivotal role of stakeholder engagement in the success and sustainability of donor-funded WASH projects, particularly in regions like Babati District, Tanzania. The findings demonstrate that meaningful involvement of stakeholders, including local communities, significantly contributes to achieving project goals. When stakeholders actively participate and their input is valued, projects are more likely to be relevant, well-adopted, and sustainable. However, challenges such as integrating diverse perspectives and delivering effective capacity-building initiatives indicate that while engagement is crucial, it must be strategically managed. The results underscore the need for a balanced approach to stakeholder engagement that ensures inclusivity, efficiency, and alignment with community needs.

To improve the success of WASH projects, it is recommended that project managers adopt structured stakeholder engagement frameworks that prioritize active participation throughout all phases of the project, from planning to execution and evaluation. This approach will foster a sense of ownership and ensure that project activities are aligned with the real needs and priorities of the community. Furthermore, effective communication and feedback mechanisms should be established to facilitate ongoing dialogue, transparency, and adaptability. These mechanisms help identify challenges early, allowing for timely adjustments and enhancing stakeholder trust and cooperation.

Capacity-building initiatives must be context-specific and practical to enhance their effectiveness. Training programs should be designed based on the unique needs, skill levels, and socio-cultural contexts of the stakeholders involved. Continuous assessment and feedback during these programs can ensure they remain relevant and impactful. Additionally, fostering partnerships with local experts and community leaders can enhance the delivery of training, making it more accessible and applicable. By ensuring that stakeholders possess the necessary knowledge and skills, projects are more likely to achieve long-term sustainability.

Lastly, to effectively manage the integration of diverse perspectives, project managers should adopt conflict-resolution strategies and inclusive decision-making processes that balance various interests. This can be achieved by facilitating regular workshops, focus groups, and participatory forums where stakeholders can voice their opinions, and consensus-building techniques can be applied. It is essential to create an environment where all voices are heard and respected, while also maintaining project efficiency. By strategically managing these dynamics, WASH projects can benefit from the rich insights and resources offered by diverse stakeholder groups, ultimately leading to more successful and sustainable outcomes.

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