

Influence of county resource planning on sanitation service delivery at Makueni County government in Kenya

Kipngetich Towett^{1*}
Godfrey Ungaya²
Evans Nyamwaka³

^{1*}towett.charles75@gmail.com
²godfreycott@kisiiversity.ac.ke
³enyamwaka@yahoo.com

Kisii University, Kenya

<https://doi.org/10.51867/ajernet.7.1.32>

ABSTRACT

Devolution of governance in Kenya was intended to improve service delivery at the county level. However, many counties are still facing substantial challenges in meeting the needs of their populations. A key constraint is the inadequate allocation of resources, which significantly impairs the capacity of county governments to effectively provide essential services, including healthcare, education, and infrastructure. The objective of this study is to examine the influence of county resource planning on sanitation service delivery in Makueni County government in Kenya. The study was grounded in the Max Weber theory of bureaucracy. A descriptive survey research design was used. The study population was 208 stakeholders involved in sanitation services in Makueni County, out of which 30% was selected as the sample size using the stratified random sampling method. In total, the sample size was 66 participants. Questionnaires and an observation guide were used for data collection. A pilot study was done to assess the reliability and validity of the instrument. Primary data collected were analyzed using descriptive statistics. The descriptive statistics comprised percentage frequencies, means, and standard deviation, and were presented using tables. These statistics helped to establish the relationship between the independent and dependent variables. The findings revealed that county resource planning is widely institutionalized and plays a critical role in shaping sanitation services. The study concluded that county resource planning strategies are a foundational determinant of sanitation service delivery in Makueni County. It recommends that Makueni County Government should strengthen its resource planning strategies by ensuring not only the adequate allocation of financial, human, and technical resources but also the timely disbursement of funds to avoid bureaucratic delays. Stronger integration between county planning frameworks and national sanitation priorities should be pursued to enhance coherence, legitimacy, and long-term sustainability.

Keywords: Makueni County, Resource Planning, Sanitation, Service Delivery

I. INTRODUCTION

The processes, frameworks, and techniques employed by local governments to oversee resources and provide services to the public are referred to as county governance. Infrastructure, healthcare, and education are examples of vital services that must be provided in order to improve public service delivery. Strong governance frameworks enable county governments to successfully address community needs while promoting accountability, transparency, and citizen participation, according to the United Nations (2021).

The relationship between public service delivery and county governance is becoming more and more important to African development. To improve local governance and the efficiency of service delivery, many African nations are putting decentralization initiatives into practice (Smoke, 2015; World Bank, 2017). Effective decentralization has improved access to basic services like healthcare, education, and sanitation in nations like Ghana and Uganda, according to several studies (Faguet, 2014; United Nations Development Programme [UNDP], 2018). However, in many local governments, enduring issues like corruption, weak institutional and administrative capabilities, and limited fiscal capacity continue to undermine service delivery results (Ahmad et al., 2019; Transparency International, 2020).

Devolution was a key component of Kenya's 2010 Constitution, which marked a significant shift from a centralized to a decentralized form of government. This change was driven by the need to promote equitable development, boost public participation in governance, and bring services closer to citizens. Local communities now have more power to choose their development objectives and to better manage their resources thanks to the establishment of 47 county administrations (Nyandemo, 2022). For instance, studies reveal that devolution has significantly improved access to healthcare, education, and infrastructure, particularly in formerly impoverished areas (Muwonge *et al.*, 2022).

However, problems like inefficient service delivery and bad financial management persist, undermining any potential benefits of devolution (Masaviru *et al.*, 2021).

Makueni County is often cited as an example of successful devolution in Kenya due to its emphasis on innovation, good service delivery, and public involvement. The county administration has made remarkable progress in a number of areas, including infrastructure, agriculture, and healthcare. Major projects like the Makueni Fruit Processing Plant and the Makueni Countywide Inclusive Sanitation Strategy show Makueni's dedication to addressing local needs and promoting economic growth (Makueni County Government, 2023; Cheeseman *et al.*, 2016). Additionally, by allowing citizens to directly influence development goals, the county's participatory approach to budgeting and decision-making has improved accountability and transparency (Nchaga & Nyaega 2023).

Despite these successes, Makueni County still faces obstacles like budgetary limitations and intermittent political meddling. Delays in the disbursement of national government funding have hindered project implementation (Office of the Controller of Budget [OCOB], 2023). Additionally, ensuring equitable resource distribution across the county remains challenging. Scholars claim that sustained public involvement, enhanced accountability frameworks, and innovative resource mobilization strategies were necessary to sustain Makueni's successes (Makueni County Government, 2023). By finding solutions to these issues, the county can keep setting the standard for effective devolution and inspire other counties to do the same.

1.1 Statement of the Problem

Although Kenya's devolution of governance was intended to improve county-level service delivery, many counties still struggle greatly to meet the needs of their citizens. One of the main problems is the insufficient distribution of resources, which makes it difficult for county governments to efficiently provide basic services like infrastructure, healthcare, and education. The National Treasury (2022) reports that recurring expenses accounted for the majority of county budgets, with only 34% going toward service delivery. Because funds designated for important sectors are frequently insufficient to meet the population's growing demands, this misallocation contributes to ongoing gaps in service delivery.

Makueni County has limited access to better sanitation. According to Kasiva (2023), only roughly 33% of the county's population has access to improved sanitation, 46% use unimproved facilities, and 19% use shared facilities. Makueni County has a low rate of open defecation (2.4%) (Mutuku *et al.*, 2024). However, insufficient funding for the community-led total sanitation (CLTS) process, particularly the village verification and certification procedures, slows the rate at which villages are declared open defecation free (ODF) (Makueni County Government, 2020). Makueni County performed poorly nationally, as evidenced by its ranking of 34th out of 47 counties in the 2017 MOH county sanitation benchmarking. Makueni County lacks sufficient systems for managing general solid waste and feces, despite the county's rapidly expanding urban population. In particular, none of Makueni County's urban areas have a single sewer system or a designated landfill for disposing of waste. Pit latrines and septic tanks are the options. Unregulated fecal sludge management services lead to improperly built septic tanks and unlawful fecal sludge disposal. Inadequate handling of general solid waste and medical waste increases the county's risk of contaminating water sources, endangering communities, and Workers in waste management are at risk for health issues. Therefore, this study sought to examine how county resource planning affects sanitation service delivery in Makueni County, Kenya.

1.2 Research Objective

To examine county resource planning with regard to sanitation service delivery at Makueni County government in Kenya.

1.3 Research Question

How does county resource planning strategies with regard to sanitation service delivery at Makueni County government in Kenya?

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Max Weber Theory of Bureaucracy

The theory was advanced by Max Weber in 1978. Weber defines bureaucracy as a logical and effective administrative structure that uses rules bound procedures, hierarchical structures and clearly defined tasks to accomplish goals. His paradigm strongly emphasized impersonal interactions achieves goals through clearly defined responsibilities, and rules-bound. To encourage equity and consistency in decision-making, his model placed a strong emphasis on impersonal relationships, merit-based appointments and specialization in order to promote justice and consistency in decision making. Since then, Weber's bureaucratic framework, has provided insights into how structured governance could improve service delivery.

Weber's theory states that hierarchical authority distribution with clear lines of responsibility and accountability fosters the best possible organizational performance. It also presupposes that predictability, efficiency and justice are guaranteed by adhering to established rules and procedures. Through giving competent employees specialized duties, specialization and division of labour are meant to enhance organizational performance. In order to foster impartiality and uniformity in administration it also specifies that choices should be made in accordance with rational legal authority rather than personal or customary influences (Weber, 1978).

Weber's bureaucratic model emphasis on efficiency and standardization can enhance service delivery by removing uncertainty and processes. Formalized procedures, for instance guarantee the methodical allocation of resources in the sanitation industry, thereby eliminating waste and corruption. The model however has serious flows such as rigidity and an excessive focus on regulations, which can hinder creativity and flexibility in response to local demands. These restrictions may make it more difficult for county governments to interact with communities or adjust to changing sanitation issues in the context of the devolved unit.

Weber's theory is relevant in analyzing how decentralized government impacts the delivery of sanitation services. The theory aligns with Makueni County's hierarchical institutions and specialized agencies. To ensure accountability and consistency, The Makueni health department, for example manages healthcare facilities and sanitation programs in compliance with established protocols (Makueni County Government, 2020). Participatory governance frameworks should be used in conjunction with Weber's theory to solve its short comings in promoting inclusiveness and adaptation, even though it provides a helpful lens for analyzing the effectiveness and structure of devolved administration.

2.2 Empirical Review

2.2.1 County Resource Planning and Sanitation Service Delivery

Spuhler *et al.* (2020) study evaluated development of sanitation planning options adoption of technologies and systems in Chile. An examination of the literature identified 27 criteria and 41 technologies. Santiago stands to gain a great deal from successful integration, as demonstrated by the case studies. This approach is structured, repeatable, and expands the range of alternatives for decision-making by providing innovative and potentially better answers. It facilitates global data access, enhances empirical decision-making, and aligns strategic goals with sustainable development objectives. It also enables early prioritization of appropriate and resource-efficient systems and encourages a more inclusive citywide approach by linking strategic goals with area-specific suitability assessments. The current study, however, was concerned with service delivery in Makueni County Government and concentrated on county resource planning.

Ambetsa *et al.* (2022) investigated how strategic planning practices on service delivery in the water department of Kakamega County Government. The study used a descriptive research approach and focused on county government personnel. Using SPSS version 24, descriptive and inferential statistics were used to examine the data. The results showed that strategic planning had a major impact on the water department's service delivery. The study emphasized how crucial organized planning is to improving county-level service delivery.

Mbui and Minja (2023) evaluated Embu County Government's strategic planning methods and how they affected county performance. The study used structured questionnaires and stratified random sampling to obtain data from a variety of administrative staff members using a descriptive survey approach. Strategic planning and county performance were found to be strongly correlated ($r = 0.76$), underscoring the importance of planning in enhancing governance and service delivery. However, the current study particularly looked at the provision of sanitation services in Makueni County, while the previous study concentrated on the county's overall performance.

III. METHODOLOGY

3.1 Research Design

The study adopted descriptive design. This research design was effective in examining the influence of devolved governance on sanitation service delivery in Makueni County Government, Kenya. The design aligned with the study's purpose and objectives by enabling the researcher to examine how devolved governance structures influence sanitation outcomes through specific variables. This facilitated an assessment of county resource planning by describing how financial, human, and infrastructural resources are allocated and utilized in sanitation service delivery.

3.2 Target population

Cox (2013) defines a study's target population as "the full set of objects for which the results of the research are meant to be utilized for drawing inferences." The target population of this study was 208 key stakeholders involved in sanitation sector of Makueni County Government. The reason for targeting these respondents is because they are directly involved in providing services to the public in regards to sanitation within the County. They are better positioned in

sharing information that could be useful in this study. The unit of analysis was the Makueni County Government whereas the unit of observation was the stakeholders involved in the sanitation sector.

Table 1

Target Population

Department	Population
Chief Officer, Environment- Co- Chairs the Sanitation team	2
Chief officer, Health services- Co- Chairs the Sanitation team	2
County department of Health Promotion services	122
County department of Water, Sanitation, Environment and Climate change	75
County department of Roads and Infrastructure and Lands & Physical Planning	2
County Administration & Enforcement Representative	1
Wote Municipality Representative	1
Wote Water and Sanitation Company Public Representative	1
Kibwezi Water and Sanitation Company Representative	1
Mbooni Water and Sanitation Company Representative	1
Total	208

3.3 Sample Size and Sampling Techniques

From the target population, at least 30% was selected to form the study sample size. This is in accordance with Mugenda and Mugenda (2003) who indicated that a sample size of 10-30% is good for a study. Hence, 66 employees formed the study sample size. Sampling is defined as the action, procedure, or method of choosing an appropriate sample or an accurate representation of a population in order to determine the variables or features of the entire population (Salant & Dillman, 2010). In this study, the proposed sampling method was stratified random sampling method. The strata consist of county department and representative from water and sanitation companies. From each stratum a sample was selected using simple random sampling technique based on proportion of the target population. This ensured equitability in data collection from every department. Moreover, to arrive at the specific sample size for each unit, the following formula was adopted:

Table 2

Sampling Size

Department	Population	Sample Size
Chief Officer, Environment- Co- Chairs the Sanitation team	2	1
Chief officer, Health services- Co- Chairs the Sanitation team	2	1
County department of Health services	122	36
County department of Water, Sanitation, Environment and Climate change	75	22
County department of Roads and Infrastructure and Lands & Physical Planning	2	1
County Administration & Enforcement Representative	1	1
Wote Municipality Representative	1	1
Wote Water and Sanitation Company Representative	1	1
Kibwezi Water and Sanitation Company Representative	1	1
Mbooni Water and Sanitation Company Representative	1	1
Total	208	66

3.4 Instruments of Data Collection

This study employed both primary and secondary data collection methods to ensure comprehensive data gathering. The primary data collection instruments included questionnaires and interviews, while secondary data was gathered through an observation guide. Each instrument is detailed below.

3.4.1 Questionnaires

The questionnaire served as the primary tool for collecting quantitative data from employees in the County Departments of Health Services, Water and Sanitation, Environment and Climate Change, and Roads and Infrastructure. It consisted of close-ended questions structured on a 5-point Likert scale to capture respondents' views on various aspects of sanitation service delivery.

The questionnaire was divided into the following sections: Section A: Background Information, Section B: County Resource Planning for Sanitation, Section C: Public Participation in Sanitation Service Delivery, Section D: Accountability Mechanisms in Sanitation Service Delivery, Section E: Sanitation Service Delivery Performance. A total

of 58 respondents were targeted for the questionnaire survey, distributed across different county departments and agencies responsible for sanitation services in Makueni County.

3.4.2 Interviews

In addition to the questionnaire, qualitative data was collected through semi-structured interviews with key stakeholders. The interviews focused on obtaining in-depth insights into devolved governance, resource planning, accountability mechanisms, and public participation in sanitation service delivery.

A total of 8 interviews were conducted with the following four categories of respondents: Chief Officers (Health Services & Environment) (2 interviews): These officials co-chair the sanitation team and oversee policy formulation and implementation. County Administration and Enforcement Representative (1 interview): Provides insights into enforcement and compliance with sanitation policies. Municipality and Water and Sanitation Company Representatives (4 interviews): Includes Wote Municipality and three water and sanitation company officials (Kibwezi, Wote, and Mbooni), who manage sanitation services at the municipal and sub-county levels. Other County Representatives (1 interview): Includes an official from the Department of Roads and Infrastructure and Lands & Physical Planning, who oversees infrastructure planning for sanitation services. Each interview session lasted between 30 to 45 minutes, and an interview guide with open-ended questions were used to allow for flexibility and depth in responses.

3.4.3 Observation Checklist

To complement primary data, an observation guides were used to gather secondary data on sanitation service delivery in Makueni County. The observation guide focused on the following aspects: Hygiene and sanitation practices within public institutions and urban centers. Toilet and waste disposal practices, including waste management efficiency. Water supply and availability, assessing the consistency and adequacy of water provision for sanitation purposes. This triangulation approach enhanced the reliability and validity of the findings by cross-verifying information obtained through questionnaires and interviews with observable sanitation conditions on the ground.

3.5 Data Analysis

The raw data obtained from the field using the questionnaires were first cleaned. The purpose of cleaning is to counter check that all the questionnaires were dully filled and no mistakes were made. Those that was blank or incorrectly filled was removed from the final data to be used in the study. Once the cleaning has been done, the second phase was coding the data into the computer. This was facilitated with the help of the Statistical Package for Social Sciences (SPSS) version 29. The program is preferred because it can handle a wide range of statistical and visual data analysis tasks. After the completion of data coding, descriptive was utilized for analysis. The descriptive statistics were summarized into frequencies and percentages and presented using tables.

IV. FINDINGS & DISCUSSION

4.1 County Resource Planning with Regard to Sanitation Service Delivery

The study sought to examine county resource planning with regard to sanitation service delivery in Makueni County Government. Respondents were presented with several statements measured on a five-point Likert scale, and the results are presented in Table 3. Key: (1) Strongly Disagree; (2) Disagree; (3) Undecided; (4) Agree; (5) Strongly Agree.

Table 3

County Resource Planning

Statements	1	2	3	4	5	Mean	Std. Dev.
The county allocates sufficient resources for sanitation service delivery.	1.7%	5.2%	13.8%	63.8%	15.5%	3.8621	.80455
The county has a well-defined strategic plan guiding the delivery of sanitation services.	0.0%	1.7%	8.6%	48.3%	41.4%	4.2931	.70109
The strategic plan for sanitation service delivery aligns with national development goals.	1.7%	5.2%	8.6%	53.4%	31.0%	4.0690	.87584
Annual development plan addresses the most pressing needs of the county in terms of water and sanitation services.	1.7%	5.2%	6.9%	46.6%	39.7%	4.1724	.90103
There is consistency between ADPs for sanitation services and long-term strategic county goals.	3.4%	0.0%	6.9%	58.6%	31.0%	4.1379	.82607
Average						4.1069	.61924

According to Table 3's descriptive results, county resource planning structures are in place and are generally viewed favorably by respondents. With 89.7% of respondents agreeing or strongly agreeing, the county received a high rating for having a clear strategic plan directing sanitation service (Mean = 4.29, SD = 0.70). Similarly, 89.6% agreed that annual development plans are in line with long-term county goals (Mean = 4.14, SD = 0.83), while 85.7% thought the plan addressed urgent sanitation and water needs (Mean = 4.17, SD = 0.90). These results imply that planning frameworks are well-established and in line with long-term development goals as well as local needs. Perceptions regarding resource allocation, however, were less favorable: while 79.3% of respondents agreed that resources are allocated to sanitation, the mean score was lower at 3.86, and 13.8% of respondents were unsure. This indicates that even though the county has strong planning tools, questions about how well resources are allocated to meet sanitation needs still exist. To further assess the extent to which county plans effectively address sanitation service delivery, respondents were asked to rate the county's performance on a three-point scale. The results are presented in Table 4

Table 4

Extent of County Plans Effectively Address Sanitation Service Delivery

Extent	N	%
Very Great Extent	14	24.1%
Greater Extent	35	60.3%
Some Extent	9	15.5%

Table 4 reinforced these findings, showing that 60.3% of respondents felt county planning addressed sanitation services to a "greater extent," and 24.1% to a "very great extent." Only 15.5% rated it at "some extent," suggesting that although planning is largely effective, it is not without gaps. These perceptions resonate with the observations by Ambetsa et al. (2022) in Kakamega County, who found that strategic planning positively influenced water service delivery, and Mbuyi and Minja (2023) in Embu County, who also established a strong correlation between planning and overall county performance. Similarly, Muthamia, (2021) found that resource planning had a strong, significant effect on water and sanitation projects in Tharaka Nithi. The present study aligns with these findings, confirming that structured and participatory planning frameworks are critical in enhancing service delivery outcomes. The interviews with county officials provided deeper insights into how resource planning influences sanitation service delivery in Makueni County. Four major themes emerged:

4.5.1 Structured Planning Approaches

Qualitative data were collected through structured interviews conducted between 10th June, 2025 and 25th June, 2025 with eight key informants drawn from the departments of health services, environment, water and sanitation, county administration in Makueni county. Each interview lasted between 30 to 45 minutes and was conducted at the respondent's respective offices.

Respondents emphasized that sanitation service delivery is guided by strategic planning frameworks such as the County Integrated Development Plan (CIDP) and Annual Development Plans (ADPs). These documents outline sanitation priorities, integrate national policy directives, and ensure consistency in resource allocation. One Chief Officer interviewed on 13th June, 2025, noted; "*The CIDP is our backbone; without it, we cannot plan for sanitation. Every project must fit into this framework.*". This statement underscores the institutional importance of the CIDP as the principal planning tool that legitimizes sanitation projects and guides their implementation. According to the results, Makueni County's sanitation planning is integrated into statutory planning procedures that improve coordination, accountability, and continuity throughout political and administrative cycles rather than being done on an as-needed basis.

Further, respondents indicated that the ADPs operationalize the CIDP by translating long-term sanitation objectives into annual, actionable projects with defined budgets and timelines. This structured approach to planning was perceived as essential in minimizing duplication of efforts and ensuring that sanitation interventions respond to both local community needs and national development priorities.

In general, the qualitative findings show that structured planning frameworks provide a strong foundation for sanitation service delivery in Makueni County. However, as later themes reveal, the effectiveness of these frameworks is influenced by the adequacy and timeliness of resource allocation.

4.5.2 Resource Allocation Practices

The second theme highlighted the types of resources allocated to sanitation. Officials pointed to financial inputs, skilled personnel, and infrastructure investment as central to sanitation improvement. However, there was consensus that these resources were often inadequate compared to the demand. A municipal administrator interviewed on 17th June, 2025, noted; "*We usually budget for more than we receive. The population growth is faster than the funds allocated, so we are always playing catch-up.*" This illustrates the gap between planning intentions and actual resource sufficiency.



4.5.3 Effectiveness of Budgeting

Respondents described the budgeting process as largely participatory, involving community representatives and county technical teams. This inclusiveness was viewed positively, but bureaucratic delays in disbursement undermined effectiveness. An enforcement officer interviewed on 16th June, 2025, explained; “The budgeting is consultative, but the delay in funds reaching departments stalls implementation. By the time resources arrive, sanitation priorities may have shifted.” This reveals how procedural inefficiencies weaken otherwise sound planning frameworks.

4.5.4 Challenges in Planning and Allocation

The last theme summarized systemic problems such as limited financial resources, political interference and lack of enough qualified personnel. Respondents observed that competing sectoral goals often diverted funds intended for sanitation. “Even when with good plans, politics sometimes dictates where resources go and sanitation does not always win” an infrastructure officer said. These findings highlight the tension between technical planning and political realities affects the sustainability of sanitation systems.

The findings provide a more extensive quantitative support than previous studies such as Sphuler et al. (2020) in Chile which concentrated on organized planning but did not evaluate its explanatory value. However, the study reveals a distinction. Even though national and international literature (UN-Habitat, 2021; Republic of Kenya, 2012; UN-Habitat, 2020) frequently highlights significant challenges like weak institutional capacity, political meddling, and rapid urbanization undermining planning effectiveness, the current study found that respondents in Makueni County generally view planning frameworks as effective.

These results show that county resource planning is more than just a statutory obligation; it is a key component of service delivery performance. Even if planning instruments like CIDPs and ADPs are well-structured and in line with both local and national development goals, ensuring adequate financial and human resources to operationalize them is challenging. Therefore, in addition to document production, effective planning must include significant resource mobilization, skills building, and political goodwill in order to truly improve sanitation services.

4.5.5 Regression Analysis on County Resource Planning and Sanitation Service Delivery

The objective of this study was to determine the effect of county resource planning on sanitation service delivery in Makueni County. A simple linear regression analysis was conducted to examine the predictive relationship between county resource planning (independent variable) and sanitation service delivery (dependent variable). The results are presented in Tables 5, 6 and 7.

Table 5

Model Summary on County Resource Planning and Sanitation Service Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500a	0.25	0.247	0.52489

a. Predictors: (Constant), County Resource Planning

The model summary indicates that county resource planning explains 25.0% ($R^2 = .250$) of the variation in sanitation service delivery in Makueni County. The adjusted R^2 of .247 suggests that the model has good explanatory power and generalizes well to the population. The correlation coefficient ($R = .500$) demonstrates a moderate positive relationship between county resource planning and sanitation service delivery.

Table 6

Anova on County Resource Planning and Sanitation Service Delivery

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.6	1	25.6	92.921	.000b
Residual	76.866	279	0.276		
Total	102.466	280			

b. Dependent Variable: Sanitation Service Delivery

The ANOVA results show that the regression model is statistically significant ($F(1,279) = 92.921, p < 0.05$). The computed F-value greatly exceeds the critical value at the 0.05 level of significance, confirming that county resource planning significantly predicts sanitation service delivery in Makueni County.

Table 7*Coefficients on County Resource Planning and Sanitation Service Delivery*

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	1.181	0.216		5.46
County Resource Planning	0.589	0.061	0.5	9.64

a. Dependent Variable: Sanitation Service Delivery

The regression coefficient for county resource planning ($B = 0.589$, $p < 0.001$) is positive and statistically significant, indicating that a one-unit improvement in county resource planning leads to a 0.589-unit increase in sanitation service delivery, holding other factors constant. The t-value of 9.640 exceeds the critical threshold, confirming the statistical significance of the predictor. The standardized beta coefficient ($\beta = .500$) indicates that county resource planning has a moderate and meaningful influence on sanitation service delivery. Based on the results, the simple linear regression model is expressed as:

$$Y = 1.181 + 0.589 X_1$$

These inferential results statistically confirm the descriptive and qualitative findings presented earlier in the study. High mean scores on planning-related indicators such as CIDP alignment, ADP consistency, and strategic prioritization (Mean = 4.11) demonstrated strong planning frameworks, while interview findings revealed that structured planning, participatory budgeting, and resource allocation processes directly influence sanitation outcomes. However, challenges such as delayed disbursement, resource inadequacy, and political interference moderate the magnitude of this effect.

The findings concur with previous studies by Ambetsa et al. (2022), Mbuyi and Minja (2023), which established that effective planning significantly enhances service delivery outcomes in devolved governments. Thus, county resource planning emerges as a critical determinant of sanitation service delivery performance in Makueni County.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study comes to the conclusion that Makueni County's sanitation service delivery is significantly impacted by county resource planning strategies. Annual and strategic plans give sanitation initiatives structure, direction, and alignment with national priorities, according to evidence from both descriptive and thematic assessments. These plans are part of legal frameworks like ADPs and CIDPs that improve legitimacy and coordination. However, a lack of funding, bureaucratic delays in allocating resources, political meddling, and conflicting sectoral demands limit their efficacy.

Despite these difficulties, planning was shown to significantly and favorably affect sanitation outcomes by encouraging financial inclusivity and guaranteeing that sanitation goals are formally acknowledged. This demonstrates that, even in the presence of well-organized planning tools, long-term improvements in sanitation delivery ultimately depend on complementary activities in skill development, resource mobilization, and political goodwill to bridge the gap between planned targets and actual implementation.

5.2 Recommendations

The results of the study indicate that Makueni County Government should improve its resource planning techniques by making sure that financial, human, and technical resources are distributed efficiently and that funds are disbursed on schedule in order to prevent bureaucratic delays. To improve coherence, legitimacy, and long-term sustainability, county planning frameworks and national sanitation priorities should be more closely aligned.

REFERENCES

- Ahmad, E., Brosio, G., & Jiménez, J. P. (2019). Options for retooling property taxation in Latin America. *Macroeconomics of Development Series, No. 202 (LC/TS.2019/91)*. Economic Commission for Latin America and the Caribbean (ECLAC).
- Ambetsa, O. M., Kadima, M. J., & Miroga, J. (2022). Strategic planning and service delivery in water department in the county government of Kakamega, Kenya. *The Strategic Journal of Business & Change Management, 9*(2), 348–361.
- Cheeseman, N., Lynch, G., & Willis, J. (2016). Decentralisation in Kenya: The governance of governors. *Journal of Modern African Studies, 54*(1), 1–35. <https://doi.org/10.1017/S0022278X1500097X>

- Cox, B. G. (2013). Target population. In *Encyclopedia of survey research methods*. Retrieved from <http://srmo.sagepub.com/view/encyclopedia-of-survey-research-methods/n571.xml>
- Faguet, J.-P. (2014). Decentralization and governance. *World Development*, 53, 2–13. <https://doi.org/10.1016/j.worlddev.2013.01.002>
- Index, C. P. (2020). Transparency International.
- Kasiva, E. G. (2023). Influence of social cultural factors and latrine status on adoption of sanitation practices in rural areas: A case of Nzau Sub-County, Makueni County, Kenya (Doctoral dissertation, Meru University of Science and Technology).
- Makueni County Government. (2020). *Makueni County Integrated Development Plan (CIDP) 2018–2022*. Makueni County Government.
- Makueni County Government. (2023). *Makueni countywide inclusive sanitation strategy (2023–2030)*. Department of Water, Sanitation and Environment.
- Masaviru, L. A., Namusonge, G. S., & Nambuswa, E. M. (2021). Influence of devolved financial resource governance structure on service delivery in the public health sector in Kenya. *Public Policy and Administration Research*, 11(1), 45.
- Mbui, C., & Minja, D. (2023). Influence of governance practices on performance of county governments in Kenya: A case of Embu County. *International Academic Journal of Law and Society*, 1(3), 111–128.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press.
- Muthamia, S. M. (2021). The influence of devolved governance system in participation management of public funds in Meru and Tharaka Nithi counties in Meru Community, Kenya. *Journal of Public Policy & Governance*, 5(2), 117–138.
- Mutuku, J. M., Juma, J., & W Aidi, B. (2024). Predictors of the resurgence and sustainability of open defecation-free status among adult residents in Kibwezi East Sub County, Makueni County, Kenya. *International Journal of Community Medicine and Public Health*, 11(2), 649.
- Muwonge, A., Owuor, C., Williamson, T. S., & Kinuthia, M. (2022). *Making devolution work for service delivery in Kenya*. World Bank Publications.
- National Treasury. (2022). *Budget policy statement 2022*. Government of Kenya.
- Nchaga, A. M., Nyaega, Z., & Extension, K. (2023). The impact of decentralized governance on service delivery in Uasin Gishu County, Kenya. *Kiu Publication*, 3, 14–24.
- Nyandemo, S. M. (2022). Devolution in Kenya as a mechanism of inclusive development: Challenges and prospects. *Journal of Economics, Management and Trade*, 28(11), 118–126. <https://doi.org/10.9734/jemt/2022/v28i111061>
- Office of the Controller of Budget (OCOB). (2023). *County governments budget implementation review report for the financial year 2022/2023*. Government of Kenya.
- Republic of Kenya. (2012). *Sessional Paper No. 10 of 2012 on Kenya Vision 2030*. Government Printer.
- Republic of Kenya. (2019). *Kenya National Environmental Sanitation and Hygiene Policy (2016–2030)*. Ministry of Health.
- Salant, P., & Dillman, D. A. (2010). *How to conduct your own survey*. John Wiley & Sons.
- Smoke, P. (2015). Rethinking decentralization: Assessing challenges to a popular public sector reform. *Public Administration and Development*, 35(2), 97–112. <https://doi.org/10.1002/pad.1703>
- Spuhler, D., Germann, V., Kassa, K., Ketema, A., Sherpa, A., Sherp, M., Maurer, M., Luthi, C., & Langergraber, G. (2020). Developing sanitation planning options: A tool for systematic consideration of novel technologies and systems. *Journal of Environmental Management*, 271, 111004.
- Transparency International. (2020). *Corruption perceptions index 2020*. Transparency International.
- UN-Habitat. (2020). *World cities report 2020: The value of sustainable urbanization*. United Nations Human Settlements Programme.
- UN-Habitat. (2021). *Cities and pandemics: Towards a more just, green and healthy future*. United Nations Human Settlements Programme.
- United Nations Development Programme. (2018). *Decentralization and local governance for development*. UNDP.
- United Nations. (2021). *The role of local governance in sustainable development*. United Nations.
- Weber, M. (1978). *Economy and society: An outline of interpretive sociology* (Vol. 2). University of California Press.
- World Bank Group. (2017). *World development report 2017: Governance and the law*. World Bank Publications.
- World Bank. (2022). *Kenya economic update: The role of county governments in sustainable urban development*. World Bank Publications.