

# Roads Projects in Kanduyi Sub-County: Strategic Planning and Sustainability

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**Abstract- Road construction projects can experience delays due to a variety of reasons, including: Weather conditions: Permitting and approvals: Unforeseen site conditions: Funding issues: Labor and equipment availability: Design changes: Strategic formulation is important for road construction sustainability because it helps to ensure that road construction projects are designed and constructed in a way that is efficient, environmentally sustainable, socially responsible, and planned for the long-term. The objective of this paper is to determine how strategic planning sustains road projects in Kanduyi Sub-County. 112 contractors, 10 technical supervisors, 5 ward administrators, and 2 KeRRA workers were the target group. Both interviews and questionnaires were employed as data collection methods for this study. Closed-ended questions were included in the questionnaires to capture specific information. This study used descriptive analysis. The research's conclusions demonstrated that road project activities were adequately developed, planned, and managed, allowing for the development and application of innovative concepts. There was collaboration with experts who were familiar with the contract as well as with government experts who compiled data into accessible resources. Finally, there was coordination with stakeholders on the core of strategy formulation, as well as collaboration with IT specialists who developed the technical infrastructure to support information system management. This suggests that businesses engaged in road construction embrace strategy formulation.**

road construction projects. For example, heavy rain can cause erosion and make it difficult for heavy machinery to operate, while extreme heat can cause tarmac to dry too quickly, making it difficult to lay properly. Permitting and approvals: Road construction projects require various permits and approvals from local and state authorities. Delays can occur if the necessary permits and approvals are not obtained in a timely manner or if there are issues with the application process. Unforeseen site conditions: Sometimes, the conditions at the construction site can be different from what was anticipated, leading to delays. For example, if the soil is not stable enough to support the road, additional work may need to be done to stabilize it. Funding issues: Road construction projects can be expensive, and delays can occur if funding is not secured in a timely manner or if there are issues with the budget. Labor and equipment availability: Road construction projects require skilled labor and specialized equipment, and delays can occur if there is a shortage of either. For example, if the contractor does not have enough workers to complete the project, or if a crucial piece of equipment breaks down and needs to be repaired or replaced. Design changes: Changes to the design of the road or the scope of the project can also cause delays. For example, if the plans for the road need to be revised, this can cause delays in the construction process. (<https://www.>). Overall, strategic planning can help to ensure that road projects are sustainable over the long term, meeting the needs of users and stakeholders while using resources effectively and efficiently. The objective of this paper is to determine how strategic planning sustains road projects in Kanduyi Sub-County.

## I. INTRODUCTION

Road construction projects can experience delays due to a variety of reasons, including: Weather conditions: Adverse weather conditions such as heavy rain, snow, or extreme heat can cause delays in

## II. TARGET POPULATION

The Kanduyi Sub county roads building enterprises were the intended audience. According to Kanduyi Sub County records from 2018 to 2020, the Sub

County awarded contracts to roughly 112 road construction companies. Therefore, the 112 contractors, 10 technical supervisors, 5 ward administrators, and 2 KeRRA workers were the target group. 129 persons in total responded to the survey (Wekesa, 2022).

### III. SAMPLE SIZE DETERMINATION AND SAMPLING PROCEDURES

According to Mugenda & Mugenda (2003), sampling is the process of choosing a portion of the target population to represent the total population. The sample size was decided upon using the census sampling technique. 129 responses made up the sample as a result. Respondents were chosen using a purposeful sampling method. Three Kanduyi Sub County ministry of roads employees took part in the interview process (Wekesa, 2022).

### IV. RESEARCH INSTRUMENTS

Both interviews and questionnaires were employed as data collection methods for this study. Closed-ended questions were included in the questionnaires to capture specific information. A schedule for interviewing officials from the Department of Roads, Infrastructure, and Public Works in Kanduyi Sub County was utilized to get data from them. Contrary to interviews where respondents would take their

time or even fail to complete or return the questionnaires, interviews are straightforward and the researcher was able to gather information right away.

### V. DATA ANALYSIS TECHNIQUES

Data analysis is the process of evaluating data using analytical and statistical methods in order to gather crucial knowledge and support decision-making. This study used descriptive analysis. Brief descriptive numbers, known as descriptive measurements, are used to compress a particular data set, which may be a representation of the entire population or a sample of it.

### VI. DATA ANALYSIS, INTERPRETATION AND DISCUSSION

Strategic planning is a process of outlining direction and deciding on resource allocation to achieve the plan. During planning, priorities are set in order to move to implementation. By use of Likert scale, the respondents were asked to tick the appropriate answer in relation to Strategic planning and sustainability of roads projects. The findings are shown in table 1.

Table 1: Strategic Planning and the sustainability of roads projects

STATEMENT	S		D		N		A		S		TOTAL	MEAN	STD
	D		F		F		F		A				
	F	%	F	%	F	%	F	%	F	%			
We form a focus group to make up planning teams.	0	0	1	0.8	4	3.3	50	42.3	63	53.4	118	4.48	0.04
We get support from the management in our organization.	0	0	0	0	5	4.2	49	41.5	64	54.2	118	4.5	0.04
We listen and respect each person's position within our organization	0	0	0	0	5	4.2	47	39.8	66	55.9	118	4.5	0.05

Our plan clearly articulates goals, responsibilities, and specific deadlines	1	0.8	1	0.8	6	5.1	60	50.8	50	42.4	118	4.33	0.06
Our plan clearly communicates subsequent steps after every strategic planning session	0	0	0	0	2	1.6	56	47.4	58	49.1	118	4.41	0.07
AVERAGE	4.44												
	0.05												

The results demonstrate that focus groups with a mean of 4.48 and a standard deviation of 0.04 are created to build up planning teams. Project managers are supported by the management, which has a mean of 4.5 and an SD of 0.04. With a mean of 4.5 and a standard deviation of 0.05, the respondents respect each person's place within their business and listen to them. The plan has a mean of 4.33 and a standard deviation of 0.06 and clearly defines goals, responsibilities, and deadlines. The plan, with a mean of 4.41 and a standard deviation of 0.07, explains the next steps after each strategic planning session. The sustainability of road projects is generally impacted by strategy planning in Kanduyi Sub-County, with a mean of 4.44 and a standard deviation of 0.05. This suggests that enterprises engaged in road construction practice strategic planning. Road companies in the Kanduyi sub-county engage in strategic planning, according to ministry officials who took part in interview schedules. The sustainability rate of road constructions has increased as a result.

The findings are in agreement with previous similar investigations (Aldehayyat and Twaissi, 2011). For an organization or firm to consistently work towards the achievement of its mission and vision, it must have a well formulated strategic plan. The plan must take into consideration all the resources and facilities owned and managed by the firm and the processes and actions needed to successfully achieve its goals. Strategic planning is therefore a process for sustaining consistency of the organization's objectives, use of resources and its changing prospects (Aldehayyat and Twaissi, 2011). It is a regulatory device which enables the organization to focus its efforts, and guarantee that the affiliates of

the organization are efficiently operating towards the common aims, and also to consistently modify the organization's activities in response to varying surrounding. Strategic planning has over time been applied effectively by big organizations to mitigate risks and for improved placement towards lasting development and productivity.

#### IX. SUMMARY OF RESEARCH FINDINGS

Strategic planning is a process of road-mapping the direction and deciding on resource allocation to achieve the plan. The research findings showed that focus groups are formed to make up planning teams. The management supports project managers and the stakeholders listen and respect each person's position within their organizations. The plan clearly articulates goals, responsibilities, and specific deadlines and clearly share subsequent steps after every strategic planning session. This implies that road construction firms value strategy planning. According to ministry officials who participated in interview schedules, road firms in Kanduyi sub-county carry out Strategic planning. This has positively improved the sustainability rate of road projects.

#### CONCLUSION

Strategic planning can play a crucial role in sustaining road projects by helping to ensure that they are well-designed, well-executed, and well-maintained over the long term. Strategic planning can help to establish clear goals and objectives for road projects, which can guide decision-making and resource allocation throughout the project lifecycle.

This can help to ensure that the project stays on track and that resources are used effectively. Strategic planning can help to ensure that road projects are designed to meet the needs of users and stakeholders, taking into account factors such as safety, accessibility, and environmental impact. This can help to ensure that the project is sustainable and meets the needs of the community over the long term. Strategic planning can help to ensure that resources are allocated effectively to road projects, taking into account factors such as cost, feasibility, and impact. This can help to ensure that the project is sustainable and that resources are used efficiently. Strategic planning can help to ensure that stakeholders are engaged throughout the project lifecycle, from planning to implementation and maintenance. This can help to ensure that the project meets the needs of the community and that stakeholders are invested in its success over the long term. Strategic planning can help to ensure that road projects are managed effectively, with clear timelines, milestones, and performance metrics. This can help to ensure that the project stays on track and that issues are addressed in a timely manner.

#### RECOMMENDATIONS

The following are some general recommendations that stakeholders can consider when using strategic planning to sustain road projects:

1. Plan for long-term maintenance: Stakeholders should plan for long-term maintenance of the road project, taking into account factors such as the expected lifespan of the road, the frequency of maintenance needed, and the cost of maintenance. This can help to ensure that the project is sustainable over the long term.
2. Consider the needs of all users: Stakeholders should consider the needs of all users when planning the road project, including pedestrians, cyclists, and drivers. This can help to ensure that the project is safe and accessible for all users.

- Suggestion for further studies

This study suggests that further study to look at Strategic implementation and the sustainability of roads projects in Kanduyi sub-county

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