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PARTICIPATORY MONITORING AND EVALUATION PRACTICES AND PERFORMANCE OF AGRICULTURE PROJECTS IN SAMBURU COUNTY, KENYA

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ABSTRACT

The Government of Kenya has established various policy interventions that are aimed at improving agricultural productivity in Kenya. Despite the implementation of numerous food security projects by the government in partnership with various community-based organizations in Counties, food insecurity persists which is an indication of unsuccessful agriculture project performance. The general objective of the study was to examine the effect of participatory monitoring and evaluation on performance of agriculture projects in Samburu County, Kenya. The specific objectives were to examine effect of participatory capacity building, and participatory baseline data collection, on performance of agriculture projects in Samburu County, Kenya. The study was guided by empowerment theory, and realistic evaluation theory. The unit of analysis was 44 agriculture projects funded by the County, National Agricultural and Rural Inclusive Growth Project *(*NARIGP*),* Agriculture Sector Development Support Programme (ASDSP), and The Drought Resilience and Sustainable Livelihoods Program (DRSLP). The unit of observation was 109 project staff (44 project managers, 44 project supervisors, and 21 M&E staff). Census was used since the target is less than 200. Primary data was collected using questionnaires. A pilot was conducted with 11 respondents. The study used content and construct validity. The researcher employed the Cronbach's Alpha Coefficient method. Data was analyzed using descriptive and inferential statistics by use of SPSS. Findings were tabulated. Findings show that there is a strong significant relationship between participatory capacity building and performance of agriculture projects in Samburu County ($r = 0.655$, p value =0.000), and a strong significant relationship between participatory baseline data collection and the performance of agriculture projects in Samburu County ($r = 0.761$, p value =0.000). The recommendations are that; project managers should employ and train the monitoring and evaluation staff to build their capacities as technical officers who should be deployed in agriculture projects, and project managers should adopt effective methods to conduct baseline surveys.

Key Words: Participatory Monitoring and Evaluation, Participatory Capacity Building, Participatory Baseline Data Collection, Agriculture Projects

Background of the Study

Participatory monitoring and evaluation (PM&E) is defined as the process of involving primary beneficiaries to decide what should be monitored and evaluated, select indicators for doing so, organize the collected information and analyze and interpret data (Vernooy et al., 2023). Participatory M&E includes involvement of communities in designing and implementation of observation, systematization and interpretation processes. Each of the interested parties/stakeholders gets actively involved at their own level of operation in collecting and interpreting information in decision making. It is an administration tool that eases the utilization of resources and coordination interaction between communities and institutions like government and others (Palermo & Hernandez, 2020). Participation drives towards enhancing stakeholders' dignity and respect towards one another. It creates political, moral awareness and responsibility of project initiators and users, develops cohesion among communities and empowers community members to push for their interests (Abbot & Forward, 2020).

Community participation at the monitoring level is important in terms of building trust between community members, as well as growing community members ' understanding of the problem and enhanced support for the project. Community member's involvement as stakeholders in this stage is not to be ignored and should come in forms of task forces, focus groups, interviews, meetings and advisory committees. Thus, it would then determine whether the intended purpose of the projects were met thereby determining the continuity or failure of the project (Tu, Hu, & Shen, 2019). Participatory monitoring and evaluation offer new ways for strengthening learning and change both at community, project and institutional level. PM&E can and has been used for various purposes, including project planning and management, organizational strengthening and learning, understanding and negotiating stakeholder interests, and the assessment of project outcomes and impact ((Bayer & Waters-Bayer, 2022), Maalim (2018) noted that participatory monitoring and evaluation provided a wide range of benefits both to the implementers of an intervention and the potential beneficiaries. Participatory evaluation could help to address the problem of mistrust in the project planning and implementation.

Statement of the Problem

In Kenya, agriculture projects play a critical role in driving the economy, contributing 33% of the country's net household income and 27% of agro-based and associated industries (FAO, 2019). The Agricultural Sector Development Strategy (2009-2020) highlights that agriculture contributes 24% of the Gross Domestic Product (GDP) and employs over 70% of the labor force. To address food insecurity, the Government of Kenya implemented various policy interventions beginning in 2010, in response to severe droughts. These interventions included fertilizer cost reduction, agricultural reforms, branding of farm produce, establishment of a publicly accessible land registry, master planning for agricultural land development, and the creation of irrigation schemes in various regions. Furthermore, the government adopted strategies for sustainable projects by supporting initiatives that foster robust monitoring and evaluation (M&E) frameworks, effective leadership, and sustainable financial sources (Kenya Food Security Steering Group, 2019).

Despite these efforts, agricultural productivity in Kenya, especially in Arid and Semi-Arid Lands (ASALs) like Samburu County, remains inadequate, leading to persistent food insecurity. Over 60% of the population in these regions rely on relief food annually, highlighting a critical over-reliance on external aid (FAO, 2019). This dependency is exacerbated by challenges such as substandard dissemination of agricultural information by extension officers, outdated content, ineffective communication methods, and poor technological adoption due to low literacy levels among farmers (GoK, 2020). As a result, the agricultural sector in ASAL regions operates under increased pressure from food insecurity, poverty, and water scarcity (Evans, Samuel & Samuel, 2021). According to the Samburu County Department of Agriculture, Livestock Development, Veterinary Services, and Fisheries FY/2020/21 report, out of 30 planned agriculture projects, only 14 were fully completed, 4

were 80% complete, 2 were at 50%, and 10 were never initiated despite funding. The primary reason for these failures was the lack of effective monitoring and evaluation activities (IFAD, 2023). Additionally, the Food and Agriculture Organization (2019) reports that approximately 22% of children under five in Samburu County are at risk of malnutrition, further illustrating the urgent need for effective agricultural interventions.

Studies from various sectors underline the importance of participatory monitoring and evaluation in improving project outcomes. Aduor and Mulei (2023) found that community participation in monitoring water supply systems significantly influenced the sustainability of rural water projects. Similarly, Sifunjo (2019) established that participatory M&E in maternal health projects in Kajiado County enhanced project sustainability through active community involvement in project identification and monitoring. Achila and Abuya (2018) also reported that participatory M&E had a statistically significant influence on the performance of early childhood development and education (ECDE) projects in Siaya County. This is supported by Muli and Mueni (2021), who noted that participatory M&E was essential in improving the performance of environmental conservation projects in Machakos County by enhancing community ownership and accountability. Further, Kamau and Karimi (2020) found that participatory M&E in agricultural water management projects in Laikipia County enhanced the efficiency and effectiveness of resource use, leading to improved project performance. In their study on community-driven development projects in Kilifi County, Mutua and Mutuku (2022) highlighted that projects involving local communities in M&E showed higher levels of success and sustainability compared to those that did not. These studies underscore the significant role of participatory M&E in enhancing project performance across various sectors, demonstrating its potential to address existing challenges in agriculture.

Despite these findings, there is a notable gap in the application of participatory M&E in agriculture projects within Samburu County. Previous research primarily focused on other sectors or different counties, leaving a contextual gap in understanding how participatory M&E can specifically impact agriculture in ASAL regions. This study sought to fill this gap by examining the influence of participatory M&E on the performance of agriculture projects in Samburu County, Kenya. The aimed is to provide insights that could reduce the over-reliance on relief food and improve the sustainability and effectiveness of agricultural interventions, ultimately enhancing food security and livelihoods in the region.

Research Objectives

To examine the effect of participatory monitoring and evaluation on performance of agriculture projects in Samburu County, Kenya. The study specifically sought to;

i. To assess the effect of participatory capacity building on performance of agriculture projects in Samburu County**,** Kenya.
ii. To establish the effect of participatory baseline data collection on performance of agriculture projects in Samburu County**,** Kenya.

LITERATURE REVIEW

Theoretical Framework

Empowerment Theory

Empowerment theory was propounded by Kanter (1993). The theory deals with dialogue of organizational performance and employee autonomy. According to the theory, empowerment is crucial in work settings that give individual access to information, resources, support, and the occasion to learn and develop. Kanter (1993) noted that emotional empowerment embraces feelings of competence, autonomy, job meaningfulness, and an ability to influence the organization. Empowered individuals are highly committed to the organization, more accountable for their work, and better able to effectively fulfill job demands. According to Abdullahi and Naveh (2011) empowerment is thought to occur when an organization sincerely engages people and progressively responds to this engagement with mutual interest and

intention to promote growth. Empowerment develops over time as employees gain greater control over their lives and increasingly take part in decisions, which affect them. This theory supports the objective on participatory capacity building since when stakeholders are empowered, they can show willingness to participate in the project M&E and sharing a sense of responsibility for individual and collective outcomes towards effective project implementation.

Realistic Evaluation Theory

Realistic evaluation theory was published by Pawson (1997). The realistic evaluation theory offers a model that focuses on determining the results that emanate from project interventions, the process of producing such outcomes, and the significance of different conditions in which such interventions occur (Pawson & Tilley, 2004). The theory focuses on what works for certain organizations or individuals, how they work, in what respects, and in what circumstances (Pawson & Tilley, 2004). Realistic evaluation theory therefore helps a project manager to understand what makes an intervention ineffective or successful, and the context that makes it successful in other areas (Cohen, Manion, & Morison, 2008).

A key strength of the realistic evaluation model is its ability to integrate lessons learned from a given evaluation and ensure it is successfully applied in different contexts. Realistic assessment looks for the context under which an intervention can be successful, thus learning lessons about the output production process (Fukuda-Parr, Lopes, & Malik, 2002). According to Robert (2010), an assessment should provide evidence-based data that is proven to be credible, reliable and helpful, and should also allow for the timely inclusion of results, suggestions and lessons in the decision-making process. In the course of the assessment, key stakeholders should be engaged in a number of ways to improve the usefulness of the results along with suggestions (Clarke, 2011). Realistic evaluation theory supports the variable on participatory baseline data collection. Data collection enables the project managers to acquire accurate data on the status of the project.

Conceptual framework

The study can be presented in a conceptual framework explaining the relationship between variables. The Figure 1 shows the relationship between the dependent and independent variables.

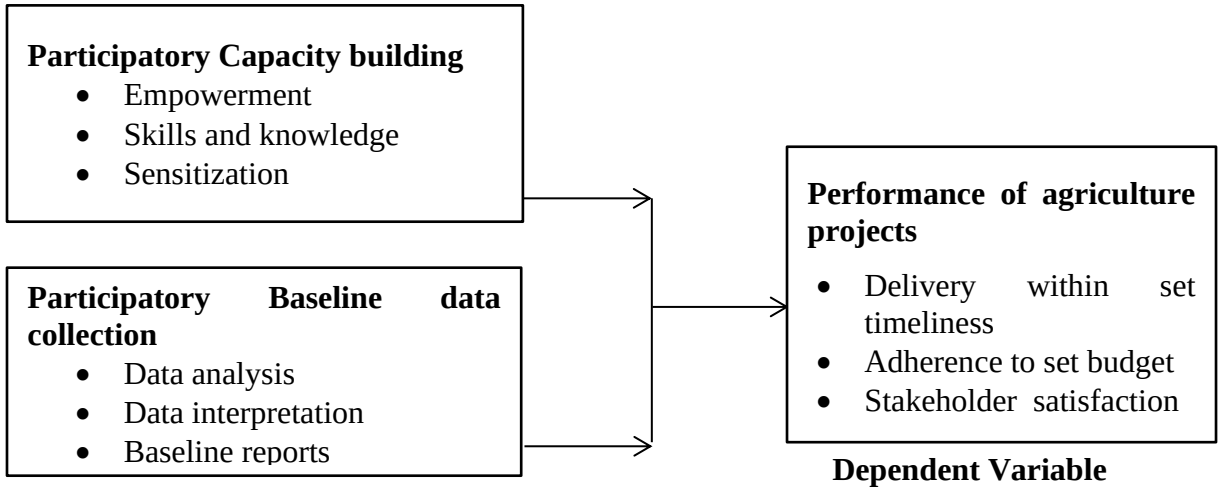

Figure 2.1: Conceptual Framework

Participatory Capacity Building

Capacity building is the ability of people, organizations, and society as a whole to manage their affairs successfully. It is a collective term denoting empowerment and general potential to achieve effectively the desired purpose determined beforehand (Kennedy, 2021). Evaluation

capacity is the ability of an M&E system to effectively achieve monitoring and evolutional objectives of an organization. M&E operation makes use of the capacities of people including beneficiaries, employers, and volunteers in M&E. It is important that the development and capacity building of various people included in M&E is designed and conducted regularly to ensure the successful and effective implementation of M&E (Mugo & Oleche, 2018). Capacity building on the personnel of M&E is considered as one of the practice leading to success project implementation and is measured in terms of the duration taken to train the participants and what aspects the participants are trained on. Capacity building is all about training the participants through the provision of skills leading to successful project implementation (Cafer, Green, & Goreham, 2022).

Human capacity is a significant constraint to Monitoring and Evaluation. Monitoring and Evaluation in most projects do not work because of poor or insufficient capacity, especially in developing countries. Most Monitoring and Evaluation staff members have insufficient or irrelevant skills and experiences in M&E and are making little effort to fill the gap. Human capital with proper training and experience is vital for the production of M&E results. M&E human resource management is required in order to maintain and retain a stable M&E staff (Amadei, 2020). Project managers face various challenges when implementing or managing M&E activities. There is insufficient M&E capacity where staffs are engaged by several projects at a time. They also take on the M&E work of too many individual projects which overextends their M&E capacity resulting in rapid burnout. This adversely affects their capacity for M&E development (Acevedo et al., 2019).

Participatory Baseline Data Collection

A baseline study is an initial assessment conducted before the implementation of an intervention or project to gather data on the current situation, attitudes, and behaviors of the target population.

The baseline study involves gathering and evaluating information from existing sources and collecting field data (Wambua, 2019). The data collected serves as a reference point against which progress can be measured and evaluated throughout the project cycle. The baseline study provides a clear understanding of the current situation, identifies the gaps, and provides valuable insights that guide the development of appropriate interventions and the establishment of indicators to track progress towards achieving desired outcomes (Chepkemoi & Otieno, 2020).

The baseline study is a critical component of M&E planning, and it is conducted to establish a baseline or starting point for monitoring and evaluating the impact of an intervention or project. It provides data that is used to measure the effectiveness of the intervention, and it helps to identify the changes that occur as a result of the intervention. Without a baseline study, it is difficult to measure the impact of an intervention accurately. The purpose of a baseline study is to establish a starting point for monitoring and evaluating the impact of an intervention or project(Mungoi, 2023).

Krzysztof et al (2021) argue that without a baseline, it is not possible to know the impact of a organization. A baseline study serves the purpose of informing decision makers what impact the organization has had on the target community. Conducting a baseline means that time and other resources for designing evaluation tools are minimized or even eliminated altogether and there is a real opportunity to detect along the way if the organization is performing or not. In addition, a baseline study serves the purpose of informing decision makers what impact the project has had on the target community and without it is not possible to know the impact of the project. Tomczyk and Ewertowski (2021) writes that it is important to ensure that whatever information is stored in the information system is credible information that will eventually find use in information organization implementation. Another feature of an information system is

that it is holistic in its approach, covers all the functional areas of the organization, and blends information from all areas of an organization.

Rogers (2019) advocates for multi-stakeholder's dialogues in the data collection, hypothesis testing as well as in intervention in order to secure greater participation. Monitoring is linked to the project management function and as such is a complex issue which result to confusion in trying to apply them on projects. Baseline surveys have been found to play a critical role in the monitoring and evaluation of projects. Such surveys are conducted once decisions to implement projects are reached. The surveys act as benchmarks for determining the successes and failures of projects. They benchmark all activities; hence, project managers can refer to them as they make important decisions. The baseline studies conducted at the start of projects help managers to identify priority areas especially when projects have several objectives to meet. This helps them to decide where resources need to be directed at any given time. As a result, without such studies and surveys, it may not be possible to determine the exact impact that projects have on different stakeholders especially the beneficiaries (Aziz & Abdel-Hakam, 2016).

Empirical Review

Participatory Capacity Building and Project Performance

Nyaboke and Atikiya(2022) studied on the effects of M&E building capacity on the performance of low cost housing projects in Nairobi County. The study concluded that capacity building has a positive and significant effect on the performance of low cost housing projects in Nairobi County. The study recommended that project managers in low cost housing projects should ensure routine monitoring of performance and formative assessments of project progress. In addition, project managers in low cost housing projects should ensure frequent data review and learning and use of learning in strategic decision making and use of data in review and planning of project.

Kaberia and Mburugu (2019) investigated the impact of staff capacity monitoring and evaluation on the performance of faithbased projects in North Meru, Meru County, Kenya. The employed a descriptive cross-sectional survey design. The target was 47 faith-based organizations in Meru North. The target population was 347 respondents and 186 were sampled. Questionnaires were used to collect data. The study found that technical experts were hired to manage relevant project areas, project staff were trained to have the necessary skills to conduct M&E, and staff knowledge and skills enabled them to participate effectively in monitoring and evaluation.

Kalu (2021) examined effect of stakeholder involvement on implementation of infrastructure projects in Kenya Ports Authority. The study employed descriptive survey research design. The study targeted 3,336 respondents who included the persons in port electrical engineering, projects development and management, civil engineering, container operations, and conventional cargo operations departments. Stratified sampling was used to sample 358 respondents. A structured questionnaire was used to collect data. The study concluded that empowerment of stakeholders is a benefit index in which a higher level of empowerment results in improved planning processes for organisations. Empowerment increases the ability and confidence of stakeholders to make choices and decisions, and access opportunities relating to their personal development and issues that concern them. This may be through access to information, resources, capabilities or institutional changes

Ekwang'a (2023) aimed at establishing the effect of M&E capacity development activities on the performance of NGO-based projects in Turkana County. The study employed descriptive and cross-sectional research designs. The study target was 148 NGO in Turkana County. A stratified random sampling design was used to sample 30 projects. The study concluded that M&E capacity building help project managers to effectively track and measure project progress toward organizational impact goals, enabling them to make data-driven choices and take action where it is most needed.

Nabibya, Dimo, and Ketter (2024) examined the influence of monitoring and evaluation of human capacity on implementation of infrastructure projects in public secondary school in Kakamega County, Kenya. The study target was 316 respondents who comprised of 101 principals, 101 Board of Management chairpersons, 101 Parents Association chairpersons and 13 Sub County Education officers. Primary data was collected using questionnaires and interview schedule. Findings showed that there was a positive significant effect of human capacity and implementation of infrastructure projects. An increase in human capacity led to an increase in implementation of infrastructure projects.

Participatory Baseline Data Collection and Project Performance

Simwaka (2020) studied influence of monitoring and evaluation on project performance in Zambia. The study used mixed research design. The study sampled 15 respondents sampled through judgmental sampling techniques. Findings revealed that baselines surveys provide the basis for subsequent assessment of how efficiently the activity is being implemented and the eventual results achieved.

Hassan (2019) sought to establish the effect of monitoring and evaluation on organization performance: a case study of United Nations high commissioner for refugees in Mogadishu, Somalia. The study employed descriptive correlation research design. Primary data was collected using questionnaires. The study found out that baseline survey is a critical tool that can help organizations to improve on their performance. Ng'etich (2020) examined influence of monitoring and evaluation on the performance of projects in parastatals in Kenya. The study adopted a descriptive research design. The study population was 98 respondents and 10 were sampled using purposeful sampling. Primary data was collected using questionnaire and secondary data was collected from published reports. From established that a baseline survey serves as a benchmark for all projects. The study concluded that baseline surveys should be conducted within scope while effective control of cost and technical performance should be put into consideration.

Chepkemoi, and Otieno (2020) sought to find out the influence of M&E systems on performance of infrastructural projects in Bomet county. The study sample was 100 respondents that were sampled using stratified sampling. Primary data was collected using questionnaires. The conclusions were that baseline survey helps in understanding project expectation and that baseline surveys enhances the project performance of infrastructural projects in Bomet County to a large extent. Ochieng (2018) assessed the determinants of effective baseline survey for donor funded slum upgrading projects in Nakuru County. The study adopted a descriptive research design. The study targeted 320 participants from three donor funded projects in water, health and sanitation and livelihoods. The target population was comprised of project managers, project officers, stakeholders and beneficiaries. Stratified random sampling was used to select a sample size of 76 participants. Semi-structured questionnaire was used to collect data. The study established a strong and significant correlation between baseline survey and project performance. The study concluded that project baseline surveys ensure transparency and accountability to all stakeholders, the management has a role in meeting stakeholder expectations, effective baseline surveys greatly depend on the human resource capacity, baseline survey funding plays a critical role on their success or failure and scope and work definition are important in designing effective baseline surveys.

Agostino, Kyalo, Mulwa (2022) sought to establish the influence of utilization of baseline survey as a monitoring and evaluation tool and sustainability of community agricultural projects supported by Caritas in Meru County, Kenya. A descriptive survey research design was utilized. The target population was 59 smallholder farmer groups and 24 Caritas Meru staff. The sample size was 51 smallholder farmer groups and the total sample size was 177 respondents comprising (153 group leaders and 24 project officers). The data collection tools were questionnaire and interview guide. The study found out that utilization of baseline survey had a statistically significant influence on the sustainability of community agricultural projects.

The study concluded that baseline surveys influence the sustainability of community agricultural projects supported by Caritas in Meru County, Kenya.

RESEARCH METHODOLOGY

The study adopted a descriptive research design. The study targeted agricultural projects in Samburu County. According to Samburu County Annual Development Plan 2022-2023, there were 44 agriculture projects funded by four different financiers. The 44 projects were the unit of analysis. The unit of observation was the project managers, project supervisors, and the M&E staff from every project hence the target was 109 project staff. The study used census which is recommended for a population which is less than 200 (Orodho, 2014). The study sample was hence 44 project managers, 44 project supervisors, and 21 M&E staff. The study collected data using questionnaires. The raw data from the field was coded, keyed into SPSS version 28, cleaned and analyzed to generate descriptive and inferential statistics. The descriptive statistics were including frequency, percentage, and mean. Inferential statistics include correlation and multiple regression to test the relationship between the study variables. The significance level for all tests was 95% confidence. Data was presented in tables and graphs.

RESEARCH FINDINGS AND DISCUSSION

Participatory Capacity Building

The first objective sought to the effect of participatory capacity building on performance of agriculture projects in Samburu County**,** Kenya. Respondents were asked to tick on the extent to which they agree/disagree with statements related to participatory capacity building. Findings are presented in Table 1.

Table 1: Participatory Capacity Building

Key: SD=Strongly disagree, D=Disagree, NS=Not Sure, A=Agree, SA= Strongly agree, M=Mean, Std dev.*=Standard Deviation*

Statements	**SD %**	**D %**	**N %**	**A %**	**SA %**	**M**	**Std dev**
Human capital resources are given clear job allocation and designation that fits their skills	11.0	14.3	2.2	14.3	58.2	3.95	1.478
Our staff has adequate M&E skills and competencies	61.5	19.8	4.4	6.6	7.7	2.21	1.261
Our M & E unit is adequately staffed	50.5	23.1	3.3	11.0	12.1	1.89	1.441
We frequently train our staff on the optimal ways to achieve M & E objectives	46.2	33.0	2.2	7.7	11.0	1.86	1.216
Stakeholders are sufficiently prepared and briefed to have well-informed opinions and decisions	11.0	12.1	2.2	18.7	56.0	3.97	1.441
Stakeholder empowerment encourages participative decision-making during project implementation	8.8	11.0	2.2	8.8	69.2	4.19	1.390
Training workshops and seminars in capacity building in M and E influence performance of the projects	14.3	4.4	5.5	23.1	52.7	3.96	1.437
Project monitoring and evaluation is a challenge among stakeholders due to inadequate human capacity building	5.5	15.4	3.3	13.2	62.6	3.88	1.332
Average						**3.24**	**1.337**

N=91

Results show that 58.2% of the respondents strongly agreed that human capital resources are given clear job allocation and designation that fits their skills. This was supported by (M = 4.18, Std dev = 1.101) which implies that the project management clearly allocate job roles and responsibilities to the project teams. This ensures that there is no role ambiguity or conflicting roles for the project management team. The project staff do not have adequate M&E skills and competencies as 61.5% strongly disagreed with the statements. This was supported by (M = 2.21, Std dev = 1.261) which indicates that the project M&E staff lack the necessary skills and competencies to effectively carry out the M&E activities. The M & E unit is not adequately staffed as 50.5% strongly disagreed with the statement. This was supported by (M = 1.89, Std dev = 1.441) which indicates that there is shortage of M&E staff in the agriculture projects which may limit the frequency of project M&E. The project staff are rarely trained on the optimal ways to achieve M & E objectives as 46.2% strongly disagreed with the statement that the staff are frequently trained on optimal ways to achieve M & E objectives. This was supported by (M = 1.86, Std dev = 1.216) which indicates that there are minimal training opportunities for the M&E staff. Stakeholders are sufficiently prepared and briefed to have well-informed opinions and decisions as 56% strongly agreed. This was supported by (M = 3.97, Std dev = 1.441) which indicates that there is adequate briefing and preparation of the stakeholders on the projects to make well informed decisions and have well-thought opinions. Stakeholder empowerment encourages participative decision making during project implementation as strongly agreed by 69.2%. This was supported by (M = 4.19, Std dev = 1.390 which indicates that the stakeholders are empowered which encourages them to participate in project implementation. Training workshops and seminars in capacity building in M&E influence performance of the projects as strongly agreed by 52.7%. This was supported by (M = 3.96, Std dev = 1.437) which shows that participation of project staff in workshops and seminars in capacity building in M&E influence performance. Project monitoring and evaluation is a challenge among stakeholders due to inadequate human capacity building as strongly agreed by 62.6%. This was supported by (M = 3.88, Std dev = 1.332) which shows that human capacity building is essential in project M&E. The average mean of 3.24 and standard deviation of 1.337 show that majority of the project management staff agreed with the statements on participatory capacity building

The project management staff also they are challenged with skills of the M&E staff. There are inadequate resources to support the staff to workshops, seminars, and benchmarking as well. The project management staff make efforts to guide the staff on M&E though they still need further training on project M&E. In addition skilled monitoring and evaluation staff influence project staff. Stakeholders empowerment ensures that the stakeholders are well conversant with the project goals and objectives and are hence dedicated to achieving the goals and objectives as stipulated in the project plans. Findings are in support of Kalu (2021) that empowerment of stakeholders is a benefit index in which a higher level of empowerment results in improved planning processes for organisations. Empowerment increases the ability and confidence of stakeholders to make choices and decisions, and access opportunities relating to their personal development and issues that concern them.

Participatory Baseline Data Collection

The second objective sought to the effect of participatory baseline data collection on performance of agriculture projects in Samburu County**,** Kenya. Respondents were asked to tick on the extent to which they agree/disagree with statements related to participatory baseline data collection. Findings are presented in Table 4.8.

Table 2: Participatory Baseline Data Collection

Key: SD=Strongly disagree, D=Disagree, NS=Not Sure, A=Agree, SA= Strongly agree, M=Mean, Std dev.*=Standard Deviation*

Statements	**SD %**	**D %**	**N %**	**A %**	**SA %**	**M**	**Std dev**

Beneficiaries and users are involved in baseline studies	14.3	9.9	2.2	17.6	56.0	3.91	1.510
The farmers participate in the baseline survey	11.0	12.1	4.4	36.3	36.3	3.75	1.355
A baseline survey is done at the beginning of projects	13.2	5.5	6.6	26.4	48.4	3.91	1.404
Baseline survey findings are considered during the initiation of the project	9.9	8.8	6.6	26.4	48.4	3.95	1.345
The project team designs the plan for preforming the baseline survey	13.2	12.1	4.4	9.9	60.4	4.08	1.529
The baseline survey is done in accordance with the designed plan.	24.2	8.8	4.4	4.4	58.2	3.64	1.784
Appropriate methods are used for data collection	7.7	51.6	8.5	30.5	2.2	2.56	1.119
Average						**3.34**	**1.140**

N=91

Results show that 56.0% of the respondents strongly agreed that beneficiaries and users are involved in baseline studies. This was supported by (M = 3.91, Std dev = 1.510) which is an indication that the project management makes efforts to involve stakeholders in baseline studies. The farmers participate in the baseline survey as agreed by 36.3%. This was supported by (M = 3.75, Std dev = 1.355) which implies that farmers as key stakeholders are involved in the baseline surveys. A baseline survey is done at the beginning of projects as strongly agreed by 48.4%. This was supported by (M = 3.91, Std dev = 1.404) which indicates that the project management ensures that baseline surveys are conducted prior to project implementation. Baseline survey findings are considered during the initiation of the project as strongly agreed by 48.4% . This was supported by (M = 3.95, Std dev = 1.345) which implies the projects are implemented based on the baseline surveys. The project team designs the plan for preforming the baseline survey as strongly agreed by 60.4%. This was supported by (M = 4.08, Std dev = 1.529) which is an indication that baseline surveys are well designed and planned. In addition, the baseline survey is done in accordance with the designed plan as 58.2% of respondents agreed with the statement which was support by (M = 3.64, Std dev = 1.784). The methods used for data collection are not appropriate as 51.6% of the respondents disagreed with the statements that appropriate methods are used for data collection. This was supported by (M = 2.56, Std dev = 1.119) which implies that the project managers lack suitable data collection methods. The average mean of 3.34 and standard deviation of 1.140 shows that majority of the respondents agreed with the statements on participatory baseline data collection.

Project management staff added that participatory baseline data collection influences project outcome since they are able to get data on project progress and whether the projects are implemented according to the desires of the stakeholders. . They are however challenges with the resources to carry out baseline surveys in collaboration with the farmers. Availability of farmers to participate in baseline surveys is also a challenge that majority of the project managers face. Findings concur with Simwaka (2020) that baselines surveys provide the basis for subsequent assessment of how efficiently the activity is being implemented and the eventual results achieved.

Project Performance

Respondents were asked to tick on the extent to which they agree/disagree with statements related to performance of agriculture projects in Samburu County, Kenya. Findings are presented in Table 3.

Table 3: Performance of Road Projects

Key: SD=Strongly disagree, D=Disagree, NS=Not Sure, A=Agree, SA= Strongly agree, M=Mean, Std dev.*=Standard Deviation*

Statements	SD %	D %	N %	A %	SA %	M	Std dev
There is efficiency utilization of resources available for the project.	65.9	2.2	6.6	15.4	9.9	2.01	1.502
The project works effectively within the set budget	6.6	65.9	4.4	20.9	2.2	1.92	1.642
Stakeholders are always satisfied by project output.	12.1	8.8	20.9	30.8	27.5	3.21	1.309
There is efficiency in the day to day operations of the project	9.9	4.4	8.8	26.4	50.5	4.01	1.295
The project is always meets the set timelines of project deliverables	65.9	6.6	4.4	11.0	12.1	1.87	1.501
Average						**2.60**	**1.450**

N=91

Results show that 65.9% of the respondents strongly disagreed that there is efficiency utilization of resources available for the project. This was supported by (M = 2.01, Std dev = 1.502) which is an indication that the project funds are not utilized efficiently and there may be embezzlement of funds or the funds disbursed are not enough to cater for all project activities. The projects do not work effectively within the set budget as 65.9% disagreed with the statement on project budget. This was supported by (M = 1.92, Std dev = 1.642) which is an indicator of project funds shortage. Stakeholders are always satisfied by project output as agreed by at least 58.3%. This was supported by (M = 3.21, Std dev = 1.309) which is an indicator of stakeholder satisfaction with the agriculture projects. There is efficiency in the day to day operations of the project as strongly agreed by 50.5%. This was supported by (M = 4.01, Std dev = 1.295) which implies that the project operations are run smoothly. The project does not always meets the set timelines of project deliverables as 65.9% strongly disagreed with the statement. This was supported by (M = 1.87, Std dev = 1.501) which indicates that the projects are delivered at a later date than indicated in the project plan. The average mean of 2.60 and standard deviation of 1.450 show that majority of the respondents disagreed with the statements on project performance.

Correlation

Correlation was conducted to measure the strength and significance of the relationship between the study variables. Correlation results are presented in Table 4.

Table 4: Correlation Coefficients

Variables		Performance	Capacity-building	Baseline-data collection
Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	91		
Capacity building	Pearson Correlation	.655**	1	
	Sig. (2-tailed)	.000		
	N	91	91	
Baseline-data collection	Pearson Correlation	.761**	.940	1
	Sig. (2-tailed)	.000	.000	
	N	91	91	91

**. Correlation is significant at the 0.05 level (2-tailed).

There is a strong significant relationship between participatory capacity building and performance of agriculture projects in Samburu County (r = 0.655, p value =0.000). This implies that an increase in participatory capacity building could lead to an increase in performance of agriculture projects. Findings support Nyaboke and Atikiya(2022) that

capacity building has a positive and significant effect on the performance of low cost housing projects in Nairobi County.

There is a strong significant relationship between participatory baseline data collection and the performance of agriculture projects in Samburu County (r = 0.761, p value =0.000). This implies that an increase in participatory baseline data collection could lead to an increase in performance of agriculture projects. Findings are in support of Ochieng (2018) that there is a strong and significant correlation between baseline survey and project performance.

Regression Analysis

Table 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant/Y Intercept	6.250	.358		17.468	.000
Capacity building	.409	.180	.391	2.272	.026
Baseline data collection	1.258	.183	1.176	6.889	.000

Participatory baseline data collection control show a statistically significant positive coefficient (β = 1.258, sig = .000), indicating that improvements in participatory baseline data collection result to higher performance of agriculture projects in Samburu County. Participatory baseline data collection has the highest effect on project performance (t = 6.889). Findings concurs with Agostino, Kyalo, Mulwa (2022) that utilization of baseline survey had a statistically significant influence on the sustainability of community agricultural projects.

Participatory capacity building control show a statistically significant positive coefficient (β = .409, sig = .026), indicating that improvements in participatory capacity building result to higher performance of agriculture projects in Samburu County. Participatory capacity building has the second highest effect on project performance (t = 2.272). Results are in agreement with Nabibya, Dimo, and Ketter (2024) that there was a positive significant effect of human capacity and implementation of infrastructure projects. An increase in human capacity led to an increase in implementation of infrastructure projects.

Conclusion

Participatory capacity building a strong significant relationship between participatory capacity building and performance of agriculture projects in Samburu County. Participatory capacity building has the second highest effect on project performance. Participatory M&E requires specialized knowledge, skills, and attitudes. Capacity building is consequently required to improve the stakeholders' ability to engage meaningfully in decision-making processes. Community empowerment on M&E is critical in encouraging participation because it provides the farmers with the required skills and information to participate in project M&E.

Participatory baseline data collection a strong significant relationship between participatory baseline data collection and the performance of agriculture projects in Samburu County. Participatory baseline data collection has the highest effect on project performance. Baseline surveys helps in keeping the priorities in check and make sure that the project is on track. . There is however lack of suitable tools to conduct project baseline surveys.

Recommendations

The project managers in conjunction with the county government should employ and train the monitoring and evaluation staff to build their capacities as technical officers who should be deployed in agriculture projects to help in monitoring and evaluating the projects. The county government and other stakeholders should launch public awareness campaigns to educate residents about the value of public participation in agricultural projects. This will aid in increasing public interest and participation in similar projects.

Project managers should adopt effective methods to conduct baseline surveys. This will enable them to effectively monitor the agriculture projects and improve their relationship with stakeholder. There should be an increased frequency of the meetings with stakeholders in order to satisfy stakeholders' perspective of being part and parcel of the project. The project managers should select an M&E tool depending on the type of information required, the available resources, and the unique assessment goals and objectives.

Areas for Further Study

A similar study could also be conducted in another county in Kenya for comparison purposes since this study was conducted in Samburu County which is among the several counties in the Arid and Semi Arid areas in Kenya.

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