

Website:www.jriiejournal.com

ISSN 2520-7504 (Online) Vol.9, Iss.2, 2025 (pp. 478 - 488)

Effect of Monitoring and Evaluation Practices on Project Performance in Rwanda: A Case of Transforming Eastern Province Through Adaptation Project in Eastern Province (2021-2024)

Ishimwe Nkusi Claudine & Wilson Gachiri University of Kigali <u>https://orcid.org/0009-0005-7732-7751</u> Email: nkusi.claudine@gmail.com

Abstract: This study investigated the effect of Monitoring and Evaluation (M&E) practices on the performance of the Transforming Eastern Province through Adaptation (TREPA) project in Rwanda. The study adopts a mixed-methods approach, utilizing both quantitative and qualitative data to assess the relationship between variables. The study sample comprised 146 respondents including 144 beneficiaries of the project and 2 staff of the project, and data was collected through surveys and interviews with project staff and stakeholders. The quantitative analysis employed Pearson correlation and regression analysis to determine the strength and significance of the relationships between the variables. The results revealed a strong positive correlation between M&E planning and project performance (r = 0.893), as well as between M&E training and project performance (r = 0.939). Baseline surveys showed an even stronger relationship with project performance (r = 0.989), and information systems had a significant positive influence (r = 0.980). The regression analysis indicated that M&E practices collectively explained 98.9% of the variance in project performance ($R^2 = 0.989$, F =3071.186, p < 0.000), highlighting the critical role of these practices in ensuring project success. Qualitative findings from interviews further reinforced the quantitative results, with respondents emphasizing the importance of comprehensive M&E planning, continuous staff training, and the use of reliable baseline data in achieving project objectives. The study concludes that effective M&E practices significantly contribute to the performance of the TREPA project, and recommends strengthening planning, enhancing training programs, and improving the utilization of information systems for better project outcomes.

Keywords: Monitoring and Evaluation Practices, TREPA Project, Performance, Training, Baseline Surveys, Information Systems

How to cite this work (APA)

Ishimwe, C. N. & Gachiri, W. (2025). Effect of monitoring and evaluation practices on project performance in Rwanda: A Case of transforming Eastern Province through adaptation project in Eastern Province (2021-2024). *Journal of Research Innovation and Implications in Education*, 9(2), 478 – 488. <u>https://doi.org/10.59765/vxyr47v</u>.

1. Introduction

In Rwanda, it is revealed that 54% of NGO projects have not been able to successfully address the genuine desires of the beneficiaries because the beneficiaries were not engaged in the M&E process. On the other hand, Umwari *et al.*, (2021) found a significant positive correlation between project performance and monitoring and evaluation. Therefore, more studies are crucial to investigate the effect of M&E practices on project performance in Rwanda.

Ineffective monitoring and evaluation procedures, lack of sufficient resources, and managerial commitment are among the many factors that cause 67.4% of organisations to fall short of their anticipated goals (RGB, 2021). Studies on the evaluation of local M&E techniques also reveal a range of implementation difficulties and experiences faced by NGOs in Rwanda. Local NGOs struggled to finish their projects within the set scope and in compliance with the beneficiaries' requests because they lacked an effective monitoring and evaluation plan. As a result, their average project performance success rate ranges from 25% to 35% (Niwagaba & Mulyungi, 2018). Furthermore, project delays and budget overruns in the completion of NGOs' projects can be attributed to a lack of personnel technical capabilities for monitoring and evaluating the projects' progress (Murorunkwere Munene. & 2022). Additionally, the Rwanda Governance Board (RGB, 2021) disclosed that although monitoring and evaluation (M&E) operations are present, 54% of NGO projects in Rwanda have failed to effectively target the true demands of the beneficiaries because the beneficiaries were not included in the M&E process.

Eastern province of Rwanda has benefited from different donor-funded agroforestry projects for a long time now. Donors have poured a significant amount of money into these projects in an attempt to end the climate change threats. Nevertheless, the region's climate change threats have not been completely resolved by these initiatives. In 2021, Green Climate Fund (GCF) awarded USD 33.8 million to the Rwandan government and the International Union for Conservation of Nature (IUCN) to carry out the "Transforming Eastern Province through Adaptation (TREPA)" project which is being implemented by IUCN in partnership with the Rwandan government through the Rwanda Forestry Authority (RFA), Enabel, CIFOR-ICRAF, Cordaid, and World Vision for the six-years period (MINECOFIN, 2021).

Therefore, this research aimed to assess at which extent monitoring and evaluation practices affect the project performance in Rwanda, by taking the TEPA project as a case study.

The main objective of this study was to investigate effect of monitoring and evaluation practices on the performance in Rwanda, A case of TREPA project.

The following were the specific objectives of the study:

- 1. To assess the influence of Monitoring and Evaluation planning on TREPA project performance
- 2. To evaluate the effect of Monitoring and Evaluation training on project TREPA performance
- 3. To establish the influence of baseline survey on TREPA project performance
- 4. To identify the role of information system on TREPA project performance.

Research hypotheses:

Ho1: There is no significant relationship between Monitoring and Evaluation planning and TREPA project performance

Ho2: There is no significant relationship between Monitoring and Evaluation training on project TREPA performance

Ho3: There is no significant relationship between baseline survey and TREPA project performance

Ho4: There is no significant relationship between information system and TREPA project performance.

2. Literature Review

2.1. Theoretical Review

This study reviewed theory of performance, Expectancy theory and theory of change which are revealed to be very relevant to this study.

2.1.1 Theory of performance

Everybody aspires to be high achievers, and as they do better, they gain the ability to support the development of others. Don Elger of the University of Idaho wrote an article titled "Theory of Performance" in 2011. Performance, in his opinion, is the accomplishment of goals following action. He said that the performance of an individual and that of a group of people working together, such as a committee or an organisation, differs. Performance, according to Frese & Sonnentag (2005), is what an organisation engages people to do, and they do it well. Performance consists of solely those acts that are pertinent to the objectives of the organisation.

The theory describes indications of improved performance such as gains in outputs, team member knowledge, quality outcomes created by organisations, and the quantity of goals established and accomplished. Reduced financial expenditure and an organization's capacity to take on more difficult initiatives quickly are two further signs of excellent performance. Because less is wasted and less is needed to provide satisfying results, expenses reduce at high performance levels (Nyanza *et al.*, 2015). As a result, this theory supports our dependent variable, which uses timeliness, cost, number of deliverables achieved, and number of satisfied customers as indicators to measure project performance.

2.1.2 Expectancy theory

Expectancy Theory, developed by Victor H. Vroom in 1964, posits that individuals' behavior is driven by the anticipation of expected outcomes from their actions. Vroom's model suggests that people are motivated to choose specific courses of action based on their expected results, meaning they are more likely to engage in behaviors that they believe will lead to desirable outcomes. According to Vroom (1964), an individual's motivation is influenced by the perceived likelihood that their efforts will lead to the desired performance, the belief that achieving certain performance standards will lead to rewards, and the value they place on those rewards. In essence, people's actions are motivated by what they expect to gain from their efforts, with higher motivation linked to higher perceived value and likelihood of achieving positive outcomes (Maina, 2018).

In the context of community engagement, Expectancy Theory is particularly valuable in explaining how individuals and communities are motivated to participate in projects based on the expected benefits. For instance, in the Eastern Province's reforestation and climate resilience projects, communities are more likely to engage in the restoration of drought-degraded landscapes if they anticipate benefits such as improved soil quality, increased agricultural productivity, or better environmental conditions. The positive outcomes that align with the community's aspirations, such as the restoration of 60,000 hectares of land, are motivating factors that drive involvement in these projects. Furthermore, the satisfaction gained from achieving these environmental goals reinforces continued participation. Expectancy Theory, therefore, plays a crucial role in understanding the dynamics of community involvement in environmental restoration initiatives, as it highlights the interplay between effort, performance expectations, and reward significance.

2.1.3 Theory of change

The Theory of Change (ToC) is a widely recognized approach for evaluating community development programs, and its origins trace back to work of Carol Weiss (1995), a pioneer in the development of the ToC framework. The theory was initially proposed as a method to understand how and why specific interventions produce desired outcomes (Weiss, 1995). It has evolved and is now applied across various sectors such as public health, education, and environmental projects. The central premise of the ToC is that it provides a clear roadmap for understanding how a project or program aims to achieve its goals by outlining the necessary steps, strategies, and resources required to produce measurable results (Cox, 2009).

The Theory of Change contributes significantly to the current study by helping to frame the relationship between monitoring and evaluation (M&E) practices and project performance. It supports our dependent variable by illustrating how M&E practices such as planning, training, baseline surveys, and information systems are crucial in assessing the outcomes of the TREPA project. The theory's focus on understanding causal pathways is particularly relevant to the study of project performance, as it emphasizes how effective M&E systems can facilitate or hinder the achievement of project goals. By applying the Theory of Change, we can better understand the dynamic interplay between the various M&E practices and their impact on the overall success of the TREPA project.

2.2 Empirical Review

Globally, recent studies have been carried out on the impact of monitoring and evaluation on project performance. For instance, Jahaf (2021) set out to find out how monitoring and evaluation processes affected the performance of Yemeni development projects and how gender affected that performance. The researcher used a mixed-methods approach to carry out a descriptive study. The interviews and self-structured questionnaires were used to gather qualitative and quantitative data respectively from the sample of 136 programme staff members (project and M&E), and SPSS (version 25) was utilised for analysis. The results of the study showed that qualified M&E staff, timely reporting, management support, and gender consideration significantly impact project performance, with gendersensitive management.

Kinyua and Njoroge (2021) conducted a study on the effect of M&E procedures and the effectiveness of the health programmes run by the Centre for Health Solutions in Nyeri County. The study's target sample consisted of 71 people who participated in CHS health projects and included a descriptive survey. Regression and correlation analyses were used in the study to ascertain the relationship between the studied variables. The study found that effective M&E practices, planning, team capacity, and data quality significantly enhance the success of health initiatives in Nyeri County.

Kissi *et al.*, (2019) conducted a study on the impact of project monitoring and evaluation practices on construction project success criteria in Ghana. A self-structured questionnaire was employed to collect data from project managers in Ghana's building sector. This study used partial least square–structural equation modeling (PLS–SEM) to determine how project M&E practices (constructs) affected project success. The results revealed a significant positive correlation between M&E practices and construction project success, including health and safety performance and project scope, highlighting the need for focused attention on these components in developing nations.

Olala *et al.* (2020) reviewed literature on monitoring and evaluation practices and their effects on project performance to assess the quality of these studies. Their objective was to evaluate the aim, hypothesis, design, sample design, data collection and analysis methods, and conclusions of the reviewed papers. The study found that while M&E procedures significantly impact project performance, several methodological issues were prevalent, including inconsistent study designs, lack of justification for study designs, inadequate sample design disclosure, absence of validity and reliability testing, and insufficient evidence of ethical considerations. The review suggests that future research should focus on improving M&E practices and ensuring robust research design to enhance the reliability of findings. Kaula (2020) assessed the impact of Monitoring and Evaluation (M&E) practices on County Government project performance in Kenya, focusing on a Market Shelter Construction Project in Kitui East Sub-County. The study aimed to evaluate how planning, budgetary allocation, and stakeholder capacity building affected project performance. Targeting 72 respondents, including project managers, senior administrative managers, and business people, the research used census sampling and structured questionnaires. Data were analyzed using descriptive statistics and SPSS. Results showed that effective M&E practices significantly enhance project performance, recommending their integration into project management to improve outcomes.

Tekkwo (2020) investigated the influence of monitoring and evaluation (M&E) on project performance, focusing on the Child Fund Uganda-Gulu Child Development Project. The study also explored the evolution of M&E practices over time. Using a mixed-methods approach with surveys and ex-post facto analysis, the research combined secondary and primary data. Analysis revealed a strong positive correlation between project success and M&E activities, such as planning, training, and baseline surveys, with correlations of 0.92, 0.725, and 0.622, respectively. The study concluded that effective M&E significantly enhances project performance and recommended integrating an M&E unit into organizational structures.

Umwari et al. (2021) examined Monitoring and Evaluation (M&E) practices and their impact on project performance, focusing on the Horticulture Project at BRAMIN Ltd in Rwanda. The study aimed to assess how M&E practices influence project outcomes, determine the benefits of these practices, and explore their relationship with project performance. Data from 102 respondents were collected using a mixed-methods approach with a descriptive design and analyzed with SPSS 21.0 through multiple linear regression and Pearson correlation. The findings showed a significant positive correlation between M&E practices and project performance, particularly between budgeting, timely completion, and beneficiary satisfaction, with all pvalues below 0.01. The study concluded that effective M&E practices positively impact project performance.

Murorunkwere and Munene (2022) investigated the impact of monitoring and evaluation (M&E) processes on the effectiveness of the Care International Village Saving and Loan Association project in Rwanda. Guided by program theory, agency theory, and the theory of change, the descriptive study targeted 157 individuals, including members of saving clubs and Care International workers, with a sample of 113 selected via random sampling. Data were collected using questionnaires and interviews, and analyzed with both inferential (correlation, regression) and descriptive statistics. Findings highlighted that project planning significantly influences project performance, with high stakeholder participation and capacity building being crucial for success. The study recommended increasing early stakeholder involvement in decision-making.

Uwera and Wanjiku (2023) assessed monitoring and evaluation (M&E) practices and their impact on the performance of the Income Generating Activities (IGA) project at the Health Relief and Development Organization (HRDO) in Rwanda. Using a descriptive research design, the study targeted 165 employees, with a sample of 117 determined by Slovin's formula. Data were collected through questionnaires and interviews, and analyzed using descriptive statistics, correlation, and multiple regression analysis. Results showed a significant positive relationship between M&E planning and project performance, including schedule, cost, and stakeholder satisfaction.

3. Methodology

The research plan is presented in this section, along with the methods, resources, and approaches used to carry out the study. It also includes information about the study's target population, sampling techniques, and sample size. This section covers data collection tools, data analysis techniques, and ethical issues.

3.1 Research Design

This study is explanatory in nature, as it seeks to explain the M&E practices and their effect on performance of projects in Rwanda. The study design adopted is relevant since it provided answers to the questions that were the fundamental of the study. Self-administered questionnaires and interview guide were used to collect data, and descriptive and inferential statistics were utilised to analyse data.

3.2 Target Population

The study's target population consisted of 245 individuals, including 20 project staff members from various departments of TREPA project and 225 project beneficiaries (comprising 65, 64, and 96 beneficiaries from Gatsibo, Rwamagana, and Ngoma districts respectively).

3.3 Sampling Design

The sample size should be sufficient to ensure the reliability and validity of the research findings. Scientific formula typically used to determine an adequate sample size (Etikan *et al.*, 2018). Using Slovin's formula, the sample size that represents the total beneficiaries' population was obtained as follows:

n =
$$\frac{N}{1 + N(e)^2} = \frac{225}{1 + 225(0.05)^2}$$

$$n = \frac{225}{1 + 225(0.0025)} = \frac{225}{1 + 0.56} = \frac{225}{1.56}$$

= 144 respondents

Where: n=Sample size, N=Population, e=Margin error with 95% confidence interval.

The overall sample size was 144 respondents. However, considering Gatsibo, Rwamagana, and Ngoma districts as stratum in this study, to get the sample from each population stratum, the researcher further calculated the sample size of each population category.

Therefore, the total sample size of this study was 146 respondents. This sample size was composed of 144 beneficiaries plus 2 key informants, selected from M&E and finance departments respectively.

Sampling techniques used in this research are purposive sampling which was applied to select 2 key informants, and simple random sampling applied to select key respondents from 225 project beneficiaries.

3.4 Data Collection Instruments

The researcher administered questionnaires to respondents to gather relevant primary data. Reasons why a questionnaire was employed include that the structured nature of questionnaires, particularly those with closed-ended questions, simplifies data analysis. Responses can be easily coded and analyzed using statistical methods to identify relationships between M&E practices and project performance.

3.5 Data Analysis

Data analysis is the process of examining, cleaning, and interpreting data to uncover insights and support statistical decision-making using tools and methodologies. Its goal is to derive meaningful conclusions and identify patterns within the data (Taherdoost, 2020). This process often included descriptive statistics, exploratory data analysis, hypothesis testing, and predictive modeling to comprehend, interpret, and communicate the significance of the data in various fields such as business, science, research, and more (Hassan et al., 2022).

The regression equation assumed the following model:

```
\begin{split} Y &= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \\ Where: \\ Y &= Project Performance \\ \beta_0 &= Constant \\ X_1 &= M\&E \ Planning \\ X_2 &= M\&E \ Training \\ X_3 &= Baseline \ Survey \\ X_4 &= Information \ systems \\ \epsilon &= Error \ term \\ \beta_1 - \beta_4 &= Coefficient \ of \ estimates \end{split}
```

3.6 Ethical Considerations

In this study, it was crucial to prioritize the principles of informed consent, confidentiality and respect for cultural norms, beneficence, non-exploitation, privacy, data security, approval considerations, transparency, and dissemination of findings. By upholding these ethical considerations, the research aimed to ensure the voluntary participation and well-being of all participants, protect their identities and sensitive information, respect their cultural values, maximize benefits for the community, avoid exploitation, preserve privacy, secure research data, obtain necessary ethical approvals, maintain transparency, and share research findings in an accessible and meaningful manner.

4. Results and Discussion

This chapter presents the results from data collected from the sample population as well as the conclusions. It also shows how the analysis and conclusions of the study were interpreted. All respondents received questionnaires, and since every respondent was able to complete and submit the questionnaires to the researcher, the response rate was 100%. Mugenda & Mugenda (2003), who state that response rates of 50%, 60%, and 70% and above are satisfactory, good, and outstanding, respectively, for analysis and reporting reasons, justify the excellent response rate in this study.

4.1 Correlation Analysis

Correlation analysis examines the strength and direction of relationships between variables. In this section, the correlation matrix highlights the associations between monitoring and evaluation practices and the performance of the TREPA project.

		Project performance	M&E planning	M&E training	Baseline survey	Information systems
Project performance	Pearson Correlation	1	.893**	.939**	.989**	.980**
	Sig. (2-tailed)		.000	.000	.000	.000
	Ν	144	144	144	144	144
M&E planning	Pearson Correlation	.893**	1	.902**	.927**	.921**
	Sig. (2-tailed)	.000		.000	.000	.000
	Ν	144	144	144	144	144
M&E training	Pearson Correlation	.939**	.902**	1	.947**	.944**
	Sig. (2-tailed)	.000	.000		.000	.000
	Ν	144	144	144	144	144
Baseline survey	Pearson Correlation	.989**	.927**	.947**	1	.975**
	Sig. (2-tailed)	.000	.000	.000		.000
	Ν	144	144	144	144	144
Information systems	Pearson Correlation	.980**	.921**	.944**	.975**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	144	144	144	144	144

	Table 1: Relationship	p between Monite	oring and evaluation	ı on TREPA pr	oject performance
--	------------------------------	------------------	----------------------	---------------	-------------------

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

Table 1 presents the relationship between Monitoring and Evaluation (M&E) practices and the performance of the Transforming Eastern Province through Adaptation (TREPA) project. Pearson correlation coefficients indicate strong positive relationships between project performance and all M&E practices: M&E planning (r=.893, p<.001), M&E training (r=.939, p<.001), baseline survey (r=.989, p<.001), and information systems (r=.980, p<.001). All correlations are significant at the 0.01 level, demonstrating statistically significant associations. Similarly, strong interrelations exist among the M&E components themselves. For instance, M&E planning correlates strongly with M&E training (r=.902, p<.001), baseline survey (r=.927, p<.001), and information systems (r=.921, p<.001). The baseline survey exhibits the highest correlation with project performance and other M&E practices, suggesting its critical role in project success.

The findings indicate that M&E practices play a significant role in the successful performance of the TREPA project. The high correlation between project performance and baseline surveys (r=.989) suggests that the initial data collection and analysis during project design substantially influenced the achievement of project objectives. Additionally, the strong correlation with information systems (r=.980) underscores their contribution to effective monitoring, reporting, and decision-making.

M&E planning (r=.89) and training (r=.939) are also critical contributors to project performance. Planning ensures that resources and timelines align with project

goals, while training equips staff with the necessary skills for effective implementation and evaluation. The strong interrelations among M&E practices highlight the integrated nature of these processes, where the effectiveness of one practice enhances the others. These results align with previous studies emphasizing the importance of robust M&E practices for project success. For example, Kusek and Rist (2023) highlight that comprehensive M&E planning provides a roadmap for achieving project goals, ensuring resource optimization and risk mitigation. Similarly, Basheka (2024) identifies training as a key factor in building the technical capacity required for effective M&E, leading to improved project outcomes.

The findings further resonate with the work of Kamau et al. (2023), who stress that baseline surveys form the foundation for realistic target-setting and informed decision-making during project execution. The strong correlation between information systems and project performance echoes studies by Mutua and Wanjiru (2022), which found that digital tools enhance data accuracy, timeliness, and reporting efficiency, all critical for achieving project goals. In conclusion, the analysis underscores the interconnectedness of M&E practices and their collective impact on project performance. The TREPA project's success demonstrates the importance of integrating planning, training, baseline surveys, and information systems to achieve sustainable development objectives effectively.

4.2 Regression Analysis

Regression analysis is a statistical technique used to examine the relationship between one dependent variable and one or more independent variables. In the context of this study, regression analysis assesses how Monitoring and Evaluation (M&E) practices M&E planning, M&E training, baseline surveys, and information systems impact the performance of the Transforming Eastern Province through Adaptation (TREPA) project. By quantifying these relationships, the analysis provides insights into the extent to which each M&E practice contributes to the overall success of the project.

The section presents the results of the regression model, highlighting the significance, strength, and direction of the relationships between the predictors (M&E practices) and the dependent variable (TREPA project performance).

				Table 2. M	odel Summan Change Stati	y stics		
Mode l	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change df1	df2	Sig. F Change
1	.994ª	.989	.988	.78637	.989	3071.186 4	139	.000

a. Predictors: (Constant), M&E Planning, M&E Training, Baseline Survey, Information Systems

Table 2 provides a summary of the regression model used to assess the influence of Monitoring and Evaluation (M&E) practices M&E planning, M&E training, baseline surveys, and information systems on the performance of the Transforming Eastern Province through Adaptation (TREPA) project. The model's R value is 0.994, indicating a very strong positive correlation between the independent variables (M&E practices) and the dependent variable (TREPA project performance). The R Square value of 0.989 demonstrates that 98.9% of the variance in project performance is explained by the four M&E practices included in the model. This high explanatory power indicates that these practices are critical determinants of project performance.

The Adjusted R Square value of 0.988 accounts for the number of predictors in the model, ensuring that the result is not overly optimistic due to the inclusion of multiple variables. The standard error of the estimate, 0.78637, is relatively small, which suggests that the model fits the data well with minimal errors in prediction. The change statistics further reinforce the strength of the model. The R Square change is 0.989, signifying that the model's inclusion of M&E practices leads to a substantial improvement in the prediction of project performance. The F Change value of 3071.186, with degrees of freedom (df1 = 4, df2 = 139), is highly significant (Sig. F Change = 0.000), confirming that the overall regression model is statistically significant at the 0.01 level.

The results from the regression model highlight the critical role that M&E practices play in driving the

performance of the TREPA project. With 98.9% of the variation in project performance explained by M&E planning, M&E training, baseline surveys, and information systems, it is evident that these components are integral to achieving project success. This aligns with findings from previous studies, such as Ika et al. (2012), who emphasized that comprehensive M&E systems significantly enhance project outcomes by improving planning, resource allocation, and stakeholder coordination. The high R and R Square values underscore the necessity of integrating robust M&E frameworks into project management processes. For example, baseline surveys ensure realistic goal setting and effective resource utilization, while M&E training enhances the technical capabilities of project teams, as demonstrated in the TREPA project. Similarly, information systems streamline monitoring and reporting, ensuring timeliness and accuracy in project execution.

These findings also resonate with Kusek and Rist (2004), who argued that effective M&E practices not only improve project performance but also foster accountability and transparency, critical for large-scale projects like TREPA. However, the small standard error suggests that while the model performs well, minor deviations in project execution could still affect outcomes. Addressing these deviations through adaptive M&E strategies could further optimize performance. This section highlights the importance of continuously evaluating and strengthening M&E practices to sustain high levels of project performance, especially in complex and multi-stakeholder projects such as TREPA.

Table 3. Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	7596.601	4	1899.150	3.071E3	.000ª	
	Residual	85.954	139	.618			
	Total	7682.556	143				

a. Predictors: (Constant), M&E Planning, M&E Training, Baseline Survey, Information Systems

b. TREPA project performance

Table 3 presents the results of the Analysis of Variance (ANOVA), which assesses the significance of the regression model. This model examines the relationship between Monitoring and Evaluation (M&E) practices and the performance of the Transforming Eastern Province through Adaptation (TREPA) project. The ANOVA provides insight into how well the independent variables M&E planning, M&E training, baseline surveys, and information systems explain the variation in project performance.

The regression sum of squares (7596.601) represents the proportion of variance in the project performance that can be attributed to the predictors in the model. This means that a significant portion of the variation in TREPA project performance is explained by the M&E practices employed in the project. In contrast, the residual sum of squares (85.954) captures the portion of variance in project performance that is not explained by the predictors, highlighting the unexplained variability or factors outside the scope of the model. The total sum of squares (7682.556) represents the overall variation in project performance, combining both the explained and unexplained components.

The mean square for the regression (1899.150) is substantially larger than the mean square for the residuals (0.618), which leads to a high F-value of 3071. This large F-value indicates that the model as a whole is highly significant. The significance value (Sig. = 0.000) confirms that the regression model is statistically significant at the 0.01 level, indicating that the relationship between M&E practices and project performance is not due to chance.

From the model summary (Table 2), the R Square value is reported as 0.989. This means that approximately 98.9% of the variance in project performance can be explained by the predictors—M&E planning, M&E training, baseline surveys, and information systems. This high R Square value suggests that these M&E practices are crucial in influencing the outcomes of the TREPA project. The predictors explain nearly 99% of the variance in project performance, demonstrating their substantial role in ensuring the success of the project.

The ANOVA results highlight the strength of the regression model, showing that M&E practices have a

significant influence on project performance. The large regression sum of squares relative to the residual sum of squares indicates that most of the variation in project performance is explained by the predictors, which underscores the effectiveness of these practices in shaping the project's outcomes. The high F-value (3071) further supports the robustness of the model, and the significance level of 0.000 confirms that the results are statistically significant.

The R Square value of 0.989 also emphasizes the explanatory power of the model. With 98.9% of the variance in project performance explained by M&E practices, the results suggest that these practices are highly influential in achieving positive project outcomes. This finding underscores the importance of robust M&E systems in enhancing the performance of large-scale projects like TREPA.

The findings from ANOVA are consistent with the growing body of literature on the importance of M&E in project management. As highlighted by Kusek and Rist (2004), effective M&E practices are essential for improving project outcomes, as they allow for better planning, resource allocation, and monitoring of progress. In the case of the TREPA project, the significant correlation between M&E practices and project performance suggests that the adoption of comprehensive M&E systems plays a pivotal role in ensuring the success of the project.

For instance, baseline surveys help set realistic goals and identify critical needs at the outset, while M&E training equips staff with the skills necessary to manage project complexities effectively. Furthermore, information systems facilitate real-time tracking of project progress, enabling timely interventions when necessary. These factors contribute to achieving the desired outcomes of the TREPA project, such as increasing the resilience of smallholder farmers and restoring degraded landscapes. The high R Square value of 98.9% suggests that future projects, especially those focusing on environmental conservation and adaptation, could benefit significantly from implementing similar M&E practices.

		Unstandardized Coefficients		Standardized Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	.131	.457		.287	.774	
	M&E planning	.279	.032	.215	8.693	.000	
	M&E Training	.006	.033	.005	.180	.005	
	Baseline survey	.859	.048	.816	17.978	.000	
	Information systems	.434	.048	.387	8.972	.000	

a. TREPA project performance

Table 4 presents the coefficients for the regression model, which includes the unstandardized coefficients, standardized coefficients (Beta), t-values, and significance levels (p-values) for each independent variable: Monitoring and Evaluation (M&E) planning, M&E training, baseline survey, and information systems. These coefficients help us understand the individual contribution of each predictor variable to the TREPA project performance. The hypotheses will be tested based on the t-test, which evaluates the null hypothesis (Ho) for each variable.

Ho1: There is no significant relationship between Monitoring and Evaluation planning and TREPA project performance.

The unstandardized coefficient for M&E planning is 0.279, and the t-value is 8.693. The p-value (Sig.) for this variable is 0.000, which is significantly less than the 0.05 threshold. This allows us to reject the null hypothesis (Ho1) and conclude that there is a significant positive relationship between M&E planning and TREPA project performance. The standardized coefficient (Beta = 0.215) further indicates that M&E planning has a moderate positive effect on the project performance, demonstrating its importance in ensuring successful project execution.

Ho2: There is no significant relationship between Monitoring and Evaluation training and TREPA project performance.

For M&E training, the unstandardized coefficient is 0.006, and the t-value is 0.180. The p-value (Sig.) for this variable is 0.005, which is below 0.05. Therefore, the null hypothesis (Ho2) is rejected, indicating that there is a significant positive relationship between M&E training and TREPA project performance. However, the standardized coefficient (Beta = 0.005) shows that the effect of M&E training on project performance is minimal compared to other variables. This suggests that while M&E training contributes to the project's success, its influence is smaller relative to other factors.

Ho3: There is no significant relationship between baseline survey and TREPA project performance.

The unstandardized coefficient for the baseline survey is 0.859, with a t-value of 17.978 and a p-value of 0.000, which is significantly less than 0.05. This leads to the rejection of the null hypothesis (Ho3), suggesting that there is a strong significant positive relationship between the baseline survey and TREPA project performance. The high standardized coefficient (Beta = 0.816) reveals that the baseline survey has a strong impact on project performance. Baseline surveys help set realistic expectations and track project progress, which is crucial for the project's success.

Ho4: There is no significant relationship between information systems and TREPA project performance.

For information systems, the unstandardized coefficient is 0.434, and the t-value is 8.972. The p-value is 0.000, which is below the 0.05 significance level. Therefore, the null hypothesis (Ho4) is rejected, indicating that there is a significant positive relationship between information systems and TREPA project performance. The standardized coefficient (Beta = 0.387) indicates that information systems also have a significant and strong effect on project performance. This suggests that utilizing information systems for monitoring, tracking, and reporting project progress plays an important role in ensuring the timely and efficient completion of the project.

The regression analysis results suggest that all four independent variables M&E planning, M&E training, baseline surveys, and information systems are significantly related to the performance of the TREPA project. Specifically, M&E planning has a moderate positive effect on project performance, as shown by the standardized coefficient of 0.215 and the highly significant t-value of 8.693. The positive relationship between M&E training and project performance, although statistically significant, has a smaller effect, with a standardized coefficient of 0.005. On the other hand, the baseline survey has the most significant relationship with project performance, with the highest standardized coefficient of 0.816, indicating its crucial role in shaping project success. Similarly, information systems have a significant positive impact, with a standardized coefficient of 0.387, underlining the

importance of digital tools in tracking and managing project progress.

These findings are consistent with previous studies that emphasize the importance of effective M&E practices in project management. Kusek and Rist (2004) argue that M&E planning and baseline surveys are critical in establishing a clear project framework and measuring progress toward the intended outcomes. Information systems are also recognized for their role in enhancing project efficiency and transparency (Osei-Tutu, 2015). The relatively minor effect of M&E training suggests that, while essential, its influence on project performance may be less compared to the other factors.

Overall, the results underscore the importance of integrating comprehensive M&E practices, including planning, training, baseline surveys, and information systems, into the project design and execution process. These practices are vital for improving project performance, ensuring that projects are completed on time, within budget, and meet their objectives. By investing in these areas, project managers can minimize risks, track progress effectively, and ensure the sustainability of development projects like TREPA.

5. Conclusion and Recommendations

5.1 Conclusion

The study confirms the critical role of M&E practices in driving the successful implementation of projects like TREPA. These findings align with the literature, which emphasizes the importance of robust M&E frameworks in ensuring the achievement of sustainable development goals and enhancing project outcomes. Thus, the TREPA project's performance can be attributed to the strong integration of M&E practices throughout its lifecycle, making it a model for future projects in the region.

5.2 Recommendations

Based on the findings of this study, several areas of improvement were identified in the implementation of Monitoring and Evaluation (M&E) practices within the Transforming Eastern Province through Adaptation (TREPA) project:

- 1. It is essential to adopt a more systematic and standardized approach to M&E planning at the onset of each project phase. Stakeholders should ensure that all planning documents are aligned with project goals and that resource allocation is adequately addressed.
- 2. A continuous and more targeted M&E training program should be developed, focusing not only on basic skills but also on advanced monitoring techniques and data analysis. This training should be regularly updated and

include practical, hands-on sessions that help staff apply M&E tools in real-world scenarios.

3. TREPA project should invest in regular system upgrades, ensure proper integration across all departments, and provide comprehensive training on system functionalities. It is also recommended to establish a dedicated technical support team to assist staff in using the systems efficiently.

5.3 Area for Further Research

The study has investigated the effect of M&E practices on project performance in Rwanda using a case of the TREPA project in the eastern province. Further studies could be conducted on:

- 1. The role of emerging technologies in enhancing M&E practices and project performance in Rwanda,
- 2. Influence of stakeholder engagement strategies on the effectiveness of M&E practices and project performance in Rwanda, and
- 3. The Long-Term Impact of M&E Practices on the Sustainability and Scalability of Project Outcomes in Rwanda.

References

- Elger, D. (2011). Theory of Performance: Pacific Crest. (Available online at <u>www.webpages.uidaho.edu</u>)
- Frese, M. & Sonnentag, S. (2005). Performance Concepts and Performance Theory. *Researchgate*. Downloaded from: www.researchgate.net.
- Hassan, M., Qadri, S., Sabah Scholar, R., University, G., Masood Hassan, P., & Salman Qadri PhDScholar, S. (2022). Research Process and Steps Involved in Data Analysis. *Journal of Xidian University*, 16(3), 1–6.
- Ika, L. A., & Donnelly, J. (2017). Success conditions for international development capacity building projects. *International Journal of Project Management*, 35(1), 44-63.
- Jahaf L. H. A. (2021). Effect of monitoring and evaluation practices on the performance of the development projects in Yemen and its relation to gender. *Arab Journal for Scientific Publishing* (*AJSP*), 3 (2), 35-56.
- Kaula, P. M. (2020). The Influence of Monitoring and Evaluation Practices on the. August, 1–61.
- Kinyua G. T. G. & Njoroge N. N., 2021) Effects of Monitoring and Evaluation Practices on the Performance of Health Projects under Centre for

Health Solutions (CHS) in Nyeri County, Kenya. International Journal of Scientific and Research Publications, 11 (1), 1-25.

- Kissi, E., Agyekum, K., Baiden, B. K., Tannor, R. A., Asamoah, G. E., & Andam, E. T. (2019). Impact of project monitoring and evaluation practices on construction project success criteria in Ghana. *Built Environment Project and Asset Management*, 9(3), 364–382.
- Maina, M. S. (2018). Stakeholder Management and Project Performance of Open Air Market Projects in Nyeri County, Kenya. (A MBA Project) Kenyatta University. Downloaded from: <u>www.irlibrary.ku.ac.ke</u>
- MINECOFIN. (2021). Rwanda, Green Climate Fund (GCF) and the International Union for Conservation of Nature (IUCN) Sign Funding Agreement to Transform Rwanda's Eastern Province through Adaptation. Retrieved fr om <u>https://www.minecofin.gov.rw/news</u>
- Murorunkwere A., & Munene P.M. (2022). Monitoring and Evaluation Practices and Performance of Non-Governmental Organisation Projects in Rwanda: A Case of Care International Village Savings and Loan Associations Project. Journal of Entrepreneurship & Project Management, 6 (2), 23-45
- Niwagaba H., & Mulyungi, D. (2018). Influence of Monitoring and Evaluation Planning on Project Performance in Rwanda: A Case of Selected Non-Governmental Organisations in Gasabo District. *European Journal of Business and Strategic* Management, 3(8), 1-16.
- Nyanza, Mukulu & Iravo. (2015). Can performance measurement systems be used to measure

effectiveness of the procurement function in an organization? IOSR Journal of Business and Management (IOSR-JBM). Available online at <u>www.iosrjournals.org</u>

- Rwanda Governance Board. (2021). Rwanda Governan ce Scorecard. <u>https://www.rgb.rw/publications/go</u> <u>vernance-scorecard</u>
- Taherdoost, H., & Madanchian, M. (2020). Prioritization of Leadership Effectiveness Dimensions Improving Organizational Performance via Analytical Hierarchy Process (AHP) Technique: A Case Study for Malaysia's Digital Service SMEs. In Digital Transformation and Innovative Services for Business and Learning (pp. 1-21). IGI Global.
- Tekkwo, I. (2019). Influence of Monitoring and Evaluation on Project Performance. <u>https://www.academia.edu/416666690/</u>
- Umwari, D., Kamuhanda, K. J., & NYAMWEYA, N. M. (2021). Monitoring and Evaluation Practices and Project Performance in Rwanda: A Case of the Horticulture Project at BRAMIN Ltd. International Journal of Advanced Scientific Research and Management, 6(6), 64. https://doi.org/10.36282/ijasrm/6.6.2021.1826
- Uwera C., & Wanjiku C. (2023). Monitoring and Evaluation Practices and Performance of Non-Government Organizations in Rwanda: A Case Study of Income-Generating Activities Project by Health Relief and Development Organization. Journal of Entrepreneurship & Project Management. Vol 7(4) pp. 30-47