

Monitoring and Evaluation Practices and Sustainability of Humanitarian Assistance Project in Juba South Sudan

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Abstract: Humanitarian interventions in South Sudan face significant challenges, including bureaucratic constraints, insecurity, and logistical barriers, which hinder effective service delivery. This study examined the influence of monitoring and evaluation (M&E) practices staff training, stakeholder involvement, resource allocation, and planning on the sustainability of humanitarian assistance projects in Juba, South Sudan. Grounded in Resource-Based View, Stakeholder, Realistic Evaluation, and Human Capital theories, the study adopted a descriptive research design and a census of 59 respondents, including project managers and team members. Data were collected using a semi-structured questionnaire and analyzed using descriptive and inferential statistics, including correlation and multiple regression analysis. The findings revealed that all four M&E practices have a positive and significant influence on project sustainability. Staff training enhances capacity and adaptability, stakeholder involvement promotes ownership and alignment with community needs, resource allocation improves access and efficiency, and planning supports effective coordination and risk management. The study concludes that strengthening these practices is essential for improving the sustainability of humanitarian interventions. It recommends the adoption of context-specific training programs, active stakeholder engagement, needs-based resource allocation, and the integration of environmental sustainability into project planning.

Keywords: Humanitarian assistance; Monitoring and Evaluation (M&E); Project sustainability; Staff training; Stakeholder involvement; South Sudan; Juba; Humanitarian projects.

1. INTRODUCTION

Sustainable projects are essential for ensuring long-term environmental stability, equitable benefit distribution, and continuous community engagement. However, inadequate integration of sustainability considerations during project implementation often results in slow and ineffective outcomes (Crawford & Bryce, 2017; Gatambia & Mutuku, 2023). Monitoring and evaluation (M&E) play a critical role in enhancing project sustainability by enabling continuous assessment, learning, and informed decision-making (Alhyari et al., 2020). Effective sustainability management further requires adaptive governance frameworks and continuous methodological improvements (Cartland et al., 2018), alongside context-specific indicators that capture the interconnections between social, economic, environmental, and political systems (Christie & Alkin, 2022).

Globally, M&E practices are increasingly recognized as essential for improving project performance and sustainability. In regions such as the United States and Asia, emphasis is placed on pragmatic and collaborative M&E approaches to enhance development outcomes (Baliga et al., 2020; Rehman et al., 2021). Similarly, integrated and multi-stakeholder M&E systems are widely adopted in the Middle East, North Africa, South Africa, and the East African Community to ensure project sustainability (Mladenovic et al., 2018; Myrick, 2020; Ika & Diallo, 2021). In Kenya, M&E has been shown to significantly influence the effectiveness and sustainability of development initiatives, particularly in government-funded projects (Biwott et al., 2017; Ndagi, 2021).

Project sustainability focuses on aligning development goals with local contexts to ensure long-term benefits (Olukotun, 2018). It involves structured systems that define objectives, ethical standards, and stakeholder engagement mechanisms

(Derichs & Valk, 2018). Sustainable projects generate enduring social, economic, and environmental impacts beyond their completion (Pade et al., 2018). Tools such as the Balanced Scorecard (BSC) support the integration of sustainability into project management by translating strategic objectives into measurable indicators (Silvius & Schipper, 2019; Adelman & Taylor, 2022). In humanitarian contexts, sustainability requires balancing short-term emergency responses with long-term development goals while engaging multiple stakeholders (Haavisto & Kovacs, 2018; Corsini & Moultrie, 2019).

M&E practices are fundamental throughout the project lifecycle, providing a basis for tracking progress, ensuring accountability, and informing corrective actions (Seasons, 2020; Marshall & Suarez, 2022). Key components of M&E include staff training, stakeholder engagement, resource allocation, and planning. Training enhances project management competencies and standardizes practices (Cerezo-Narvaez et al., 2019; Edum-Fotwe & McCaffer, 2021), while stakeholder engagement fosters trust, reduces conflict, and improves project outcomes (Karlsen, 2021; Aapaoja et al., 2022). Efficient resource allocation ensures optimal utilization and improved performance (Klimek & Lebkowski, 2019; Chang et al., 2021), and effective planning facilitates timely project execution and goal alignment (Dvir et al., 2018; Globerson & Zwikael, 2022).

Despite these advancements, humanitarian aid programs continue to face sustainability challenges due to increasing global crises, resource constraints, and implementation barriers (Amadei et al., 2019). In South Sudan, persistent humanitarian challenges including conflict, displacement, and food insecurity have intensified dependence on external aid, while bureaucratic, security, and logistical constraints hinder effective service delivery. Although prior studies have established links between M&E practices and project performance (Wang'aya & Kagiri, 2018; Mukaria, 2021; Adhan & Mutuku, 2021), findings remain context-specific and inconclusive. For instance, evidence from South Sudan indicates a weak relationship between M&E capacity and system effectiveness (Tukei et al., 2021). Therefore, this study seeks to examine the influence of M&E practices on the sustainability of humanitarian assistance projects in Juba, South Sudan.

2. LITERATURE REVIEW

The theoretical foundation of this study is anchored on four key theories: Resource-Based View (RBV), Stakeholder Theory, Realistic Evaluation Theory, and Human Capital Theory. The RBV theory conceptualizes organizations as bundles of resources and capabilities that drive competitive advantage and performance (Penrose, 1959; Barney, 1991). It emphasizes the strategic importance of internal resources such as human, physical, and organizational capital in enhancing efficiency and sustainability (Acedo et al., 2018). Stakeholder Theory highlights the need for organizations to balance and manage the interests of diverse stakeholders to ensure long-term sustainability and project success (Freeman, 1984; PMI, 2004). Effective stakeholder engagement fosters collaboration, reduces conflicts, and enhances project outcomes.

Realistic Evaluation Theory provides a contextual approach to assessing project effectiveness by examining what works, for whom, and under what conditions (Pawson & Tilley, 1997; Pawson et al., 2004). It underscores the importance of understanding causal mechanisms and contextual factors in project implementation (Julnes et al., 2018; Holma & Kontinen, 2020). Human Capital Theory, on the other hand, emphasizes the role of education, skills, and competencies in improving organizational productivity and project outcomes (Schultz, 1961; Becker, 1964). Investment in human capital enhances staff capacity, thereby contributing to effective project implementation and sustainability (Marimuthu et al., 2009).

Empirical evidence demonstrates a strong relationship between Monitoring and Evaluation (M&E) practices and project sustainability. Studies on staff training indicate that capacity building positively influences sustainability, although the strength of the relationship may vary (Mahalingam & Nagarajan, 2018; Ateya et al., 2018; Oganga et al., 2017). Similarly, stakeholder involvement has been found to significantly enhance project sustainability through improved participation, alignment, and ownership, despite some evidence of weak or context-specific effects (Ochunga, 2016; Ngare et al., 2019; Onziru et al., 2022).

Resource allocation is another critical determinant of sustainability, with studies showing that effective resource mobilization and management significantly improve project outcomes (Collins & James, 2018; Riziki et al., 2019; Ndayisaba et al., 2018). Proper allocation ensures optimal utilization of resources and supports long-term project viability. Additionally, project planning has been consistently identified as a key driver of sustainability, influencing factors such as time management, cost control, and project scope (Mburu, 2017; Mohamed & Moronge, 2017; Nzomo, 2022). While existing studies confirm the importance of M&E practices in enhancing project sustainability, most findings are context-specific, with variations across sectors and regions. This underscores the need for further research to establish context-relevant evidence, particularly in humanitarian settings such as South Sudan.

3. RESEARCH METHODOLOGY

The study employed a descriptive research design to collect and analyze data without manipulating the study environment (Glass & Hopkins, 2016). It focused on humanitarian assistance projects in Juba, South Sudan, using a census of 59 respondents, including project managers and team members (Ayala et al., 2011; Mugenda & Mugenda, 2003). Data were collected through a semi-structured questionnaire with both open- and closed-ended items measured on a five-point Likert scale (Kealy & Turner, 2013).

A pilot study involving six respondents was conducted to ensure validity and reliability, with Cronbach’s alpha of 0.766 confirming acceptable internal consistency (Cooper et al., 2011; Morse et al., 2012; Ranjit, 2015). Data analysis combined qualitative content analysis and quantitative techniques, including descriptive statistics and inferential methods such as correlation and multiple regression using SPSS. Ethical standards were maintained through informed consent, confidentiality, and necessary research approvals.

4. RESEARCH FINDINGS AND DISCUSSIONS

4.1 Descriptive Statistics Results

4.1.1 Staff Training

Table 4.1: Staff Training

Statement	M	St.dev
Competent staff possess the expertise and experience necessary to effectively implement projects and ensure sustainability.	3.97	1.028
Competent staff enhance workplace connections by executing duties while concurrently interacting with colleagues.	4.62	0.377
Staff with better knowledge about the project makes better and faster decision making	4.63	0.370
A good knowledge about the project lead to increased rate of innovation	3.96	1.037
Motivation may drive, encourage, and energize staff and project teams to attain significant achievements.	3.68	1.327
Incentives and rewards inspire staff by providing recognition for accomplishments and reinforcing favorable habits.	3.57	1.430
Aggregate score	4.07	0.928

The findings show strong agreement (M=4.07) that staff training significantly enhances project sustainability. A majority (85.6%) agreed, indicating that capacity building improves service quality, decision-making, and innovation. These findings align with Cerezo-Narvaez et al. (2019) and Edum-Fotwe and McCaffer (2021), emphasizing the importance of standardized training in project management.

4.1.2 Stakeholder Involvement

Table 4.2: Stakeholder Involvement

Statement	M	St.dev
Stakeholder involvement improves the project design	4.44	0.590
Engagement fosters ownership and empowerment	3.99	1.010
Facilitates dialogue and collaboration	4.57	0.429
Provides feedback to improve performance	4.52	0.488
Aligns projects with sustainability goals	4.08	1.157
Stakeholders support projects they are involved in	3.91	1.089
Aggregate score	4.25	0.794

Stakeholder involvement recorded strong agreement (M=4.25), with 93.4% concurrence. This indicates its critical role in enhancing ownership, alignment, and sustainability. Findings are consistent with Karlsen (2021) and Aapaoja et al. (2022).

4.1.3 Resource Allocation

Table 4.3: Resource Allocation

Statement	M	St.dev
Helps identify and prioritize sustainability outcomes	4.05	0.828
Balances trade-offs in resource use	4.30	0.598
Ensures efficient utilization	4.55	0.515
Promotes environmental and social responsibility	3.66	1.340
Scheduling ensures timely completion	4.52	0.603
Enhances communication and collaboration	4.55	0.447
Aggregate score	4.27	0.721

Resource allocation showed strong agreement (M=4.27), with 89.7% support. It plays a vital role in efficiency, equity, and sustainability, aligning with Klimek and Lebkowski (2019) and Chang et al. (2021).

4.1.4 Planning

Table 4.4: Planning

Statement	M	St.dev
Change management enhances ownership	4.52	0.479
Improves employee satisfaction	4.46	0.539
Ensures timely and budget compliance	4.03	0.967
Enhances communication	4.51	0.490
Enables risk identification	4.36	0.638
Communicates project vision	4.53	0.470
Aggregate score	4.40	0.597

Planning recorded the highest agreement (M=4.40), confirming its importance in coordination, risk management, and goal alignment. Findings support Globerson and Zwikael (2022) and Dvir et al. (2018).

4.1.5 Project Sustainability

Table 4.5: Project Sustainability

Statement	M	St.dev
Projects are adaptable	2.99	2.010
Scope is manageable	2.66	2.340
Projects are maintainable	3.08	1.727
Aggregate score	2.91	2.067

Unlike other variables, project sustainability scored low (M=2.91), with 83.6% disagreement, indicating significant concerns about adaptability, manageability, and long-term viability.

4.2 Inferential Statistics Results

4.2.1 Correlation Analysis

Table 4.6: Correlation Analysis

Variable	Staff Training	Stakeholder Involvement	Resource Allocation	Planning	Project Sustainability
Staff Training	1				
Stakeholder Involvement	0.305	1			
Resource Allocation	0.224	0.264	1		
Planning	0.415	0.287	0.277	1	
Project Sustainability	0.795	0.788	0.803	0.706	1

All independent variables show **strong, positive, and significant relationships** with sustainability ($p < 0.05$).

4.2.2 Regression Analysis

Model Summary (Table 4.7)

R	R Square	Adjusted R Square	Std. Error
0.911	0.829	0.796	1.0034

The model explains **79.6% of variation** in project sustainability.

ANOVA (Table 4.8)

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	61.284	4	15.321	21.316	0.003
Residual	35.219	49	0.7188		
Total	96.503	53			

The model is **statistically significant** ($p = 0.003$).

Coefficients (Table 4.9)

Variable	B	Std. Error	Beta	t	Sig.
Constant	0.635	0.128		4.961	0.003
Staff Training	0.709	0.245	0.0241	2.894	0.004
Stakeholder Involvement	0.783	0.316	0.0367	2.478	0.002
Resource Allocation	0.791	0.229	0.0411	3.454	0.001
Planning	0.701	0.311	0.0397	2.254	0.003

All variables have **positive and statistically significant effects** on project sustainability, with resource allocation having the strongest influence.

5. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that monitoring and evaluation practices specifically staff training, stakeholder involvement, resource allocation, and planning play a significant role in enhancing the sustainability of humanitarian assistance projects. Staff training improves efficiency, adaptability, and overall project performance, while stakeholder involvement fosters ownership, transparency, and alignment with community needs. Effective resource allocation ensures equitable distribution, minimizes wastage, and enhances resilience among vulnerable populations. Additionally, proper planning supports efficient resource utilization, stakeholder coordination, and risk management, all of which are critical for sustainable project outcomes.

The study recommends that organizations invest in comprehensive, context-specific training programs to strengthen staff capacity in sustainability practices. It also emphasizes the need for active stakeholder engagement throughout the project lifecycle to enhance collaboration and accountability. Furthermore, organizations should adopt needs-based resource allocation strategies and strengthen partnerships to improve efficiency and avoid duplication of efforts. Finally, integrating environmental sustainability and strategic planning into project design is essential to ensure long-term viability and effectiveness of humanitarian interventions.

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