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Research Article

Assessment of Challenges in Monitoring and Evaluation of Food Security Project Implementation in Somali Regional State in Case of Environmental Protection and Rural-Land Administration: Examining the Role of Data Management System

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ABSTRACT

Project management, particularly long lasting food security related developmental projects, require monitoring and evaluation. While doing this, data system-based monitoring and evaluation system is highly in deficit posing several obstacles to projects successful execution. This study sought to assess challenges of M & E and the role data management system can play in food security related developmental projects implemented by Somali Regional State Environmental Protection and Rural land Administration. Other objectives of the study include top management support, M & E tools and approaches and human capacity and examine the role of data management system in averting this challenges. The study used a quantitative research methodology and a descriptive research design. The study targeted a population of 40 employees of Somali Regional State Environmental Protection and Rural land Administration and 37 respondents were considered. The study was conducted on seven ongoing projects and six respondents were selected from each project. They were few in number, thus a census survey was used. A questionnaire was used in the study to gather primary data. Five respondents were given questionnaires as part of a pilot test to evaluate the validity and dependability of the data instruments. The instrument's validity were determined through the help of expert judgment who assessed the instrument and found out it answered the phenomenon under study. The SPSS statistical program was used to sort, clean, and code the collected data in preparation for data analysis. Tables were used to display the results after they were evaluated using means, standard deviations, percentages, and frequencies. The findings indicated that the organization allocates insufficient funds to M&E activities (less than 5-10% of overall projects budget) and did not ensure a separate budget to M & E activities. The findings also indicated that there is no sophisticated data management system in place to monitor and evaluate the projects. Funds allocated for M & E were not timely provided and specifically used for M&E activities and the organization did not ensure there is independency in the budgetary decisions for the monitoring and evaluation unit and utilization of the funds and the necessary data systems to ease the monitoring work are not in place. The result of the study revealed that top management gives little commitment to M & E and developing efficient data management system in that M&E activities are not carried out within schedule and did not ensure that staff are trained on M&E regularly. The study recommends to make M and E activities considered as core activities and to develop state-of-the-art data management system.

Keywords: particularly, Project management, developmental, land Administration

INTRODUCTION

The Bureau of Environment, Forests & Climate Change was founded on October 11, 2011, under Proclamation Number 185/2011 E.C. Among the Regional Cabinet Bureaus is the Bureau of Environmental Protection and Rural Land Administration. In 2014 E.C., the Cabinet decided to expand and add the Department of Rural Land Administration.

Journal of Information Systems Engineering and Management
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Research Article

The Bureau is committed to protecting the environment, developing and using forests, conserving biodiversity, creating plans for adaptation to the effects of climate change, establishing policies for rural land management, and, finally, keeping an eye on the changes in the political, social, cultural, and economic landscapes of all societies—especially those impacted by climate change—while promoting development and good governance.

One of the main components of successful project performance (particularly food security related long-lasting ones) is often project monitoring and evaluation and also how our data is organized and up to date while carrying out this activities. By recording lessons learned during project implementation and applying them to future project planning and execution, or by exchanging experiences with other implementers, it fosters organizational learning and offers a way to hold stakeholders accountable and demonstrate transparency.(Altay et al., 2018).

Monitoring and evaluation (M&E) are essential components of results-based management(Dixit et al., 2019). Results-based management (RBM) involves deliberately gathering empirical evidence to know the extent to which intended results are being achieved so that modifications to the design and delivery of activities can be improved, and performance in reaching the desired result can be taken into account. Furthermore, organizations successfully adopting RBM will need to have appropriate systems and procedures in place that collectively constitute an RBM regime(Salam & Khan, 2020). Project M & E performance can be measured and evaluated using a large number of data and performance indicators that could be related to various dimensions (groups) such as time, cost, quality, client satisfaction, client changes, business performance, health, and safety(Carrasco-gallego, 2019). However, the most common dimensions of performance evaluation are time, money, and quality. Another interesting way of evaluating project performance is through common sets of indicators (Carland et al., 2018)

When done properly, at the appropriate time, supported with concrete data management system and in the appropriate location, monitoring and evaluation are two of the most crucial components in making sure that many projects succeed. Sadly, although being well-known to many project developers, these two frequently receive little attention. As a result, they are completed merely to satisfy the requirements of the majority of funding agencies rather than with the goal of utilizing them as a means of guaranteeing the projects' success. There are still instances of project failure even though effective monitoring and evaluation result in project success. (Azmat et al., 2019).

These challenges has to be addressed when establishing a monitoring and evaluation system, either through the definition of objectives and indicators in a logical framework, preparing data management software or by selecting alternative approaches, which allow for a flexible definition of objectives through the target group. The only comprehensive source of data demonstrating project progress is provided by monitoring and assessment. This study therefore assesses challenges of monitoring and evaluation in agriculture and food security related projects projects implemented by SRS EPRLA and explore the role efficient data management system. The findings of the study will provide a solution to the stated problem by precisely digging out challenges that impede effective monitoring and evaluation of projects. The study was intended to identify and assess challenges affecting monitoring and evaluation faced by project managers, project coordinators, monitoring and evaluation specialists and data management system for project success.

Objectives

This study's main goal is to evaluate the challenges associated with food security related developmental projects monitoring and evaluating initiatives and the role of developing data management system related to environmental protection and rural land administration bureau, Somali Regional State of Ethiopia. The specifically focused on assessing budget allocation of monitoring and evaluation activities, office's top management priority giving, digitalizing the monitoring and evaluation activities and identify human capacity related challenges of monitoring and evaluation of projects.

RESEARCH METHODS

Descriptive research design was used in this study because of the need for sufficient and precise data relevant to meet the specific objectives of the study by guarding against bias and ensuring maximum reliability, as recommended by Kothari (1999). As Babbie (2004) also points out, a descriptive research design is more precise and accurate since it

Journal of Information Systems Engineering and Management
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Research Article

involves the description of events in a carefully planned way. This design is a collection of techniques and protocols that define variables. It involves gathering data that describe events and then organizing, tabulating, depicting, and describing the data. Therefore, a descriptive research design was used to assess challenges of M & E in projects at SRS EPRLA. Descriptive research design provides information which could be used as a basis for important decisions that are to be made on challenges of M & E in projects. It is used to describe the current status of identified challenges of M & E in projects.

A quantitative design approach was used so that numerical data can be analyzed using statistical procedures. quantitative research approach provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships. In a quantitative research approach, the data were analyzed with the help of statistics, and the numbers was yield an unbiased result that can be generalized to some larger population. For the study, both primary and secondary data sources were consulted. A questionnaire was used to gather primary data. Respondents were given both closed- and open-ended questions. The study employed dependable, sufficient, and relevant published secondary data sources, such as journals, scholarly articles, and publications from governmental and non-governmental organizations.

A questionnaire was used to gather data, and questions were designed to ask respondents to rate assertions on a Likert scale. A 5-point Likert scale, ranging from "strongly disagree" to "strongly agree," was used to measure the challenges of M&E with regard to budget allocation, data management system development, top management support, M&E tools and processes, and human capabilities.

RESULTS

Out of 40 questionnaires which were distributed, 37 were correctly completed and returned, resulting in a response rate of 92.5%. The response rate was appropriate since, according to Kothari (2007), a response rate of greater than 70% is acceptable for analysis.

Table 4. 1 Response Rate

Sample size	Number	Percent
Correctly filled and returned	37	92.5
Not returned	3	7.5
Total	**40**	**100.0**

Demographic Information

The study attempted to determine the demographic features of the respondents, specifically their gender, age, greatest level of education, and work experience in M&E.

Table 4. 2 Gender of Respondents

Gender	Frequency	Percent
male	25	67.6
female	12	32.4
Total	**37**	**100.0**

As can be seen from table 4.2 above, there was nearly unequal gender representation among those who participated in M&E of development projects in Somali regional state Environmental protection and rural-land Administration. Of the respondents, 67.6% (25) were male and only 32.4% (5) were female.

Journal of Information Systems Engineering and Management
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https://www.jisem-journal.com/

Research Article

Level of Education of Respondents

The respondents were asked to indicate their academic background. Table 4.4 shows the study findings on the respondents' academic background.

Table 3.3 Respondents' Education Level

Level of education	Frequency	Percent
PhD	1	2.7
Masters	13	35.1
Undergraduate	21	56.8
Diploma	2	5.4
Total	**37**	**100.0**

When it came to education, 56.8% (21), or the majority of respondents, had completed their undergraduate degrees. A further 35.1% (13) had completed their master's degrees. Furthermore, 2.7% (1) and 5.4% (2) of the respondents, respectively, held PhD and diploma qualifications.

Work Experience of Respondents in M & E

The respondents were requested to indicate how long they had been working for M & E. The findings are illustrated in Table 4.5.

Table 4. 4 Work Experience of Respondents in M & E

Work Experience	Frequency	Percent
less than one year	7	18.9
1-4	17	45.9
5-8	11	29.7
9-12	1	2.7
above 12	1	2.7
Total	**37**	**100.0**

According to the results, 45.9% (17) of the respondents said they had worked in M&E for one to four years, while 29.7% (11) of the respondents said they had worked there for five to eight years. 18.9% of respondents (7) said they had worked for less than a year, and the same two respondents (2.7% (1) and 2.7% (1)) said they had worked in M & E for periods of 9–12 years and more, respectively. The findings show that the majority of employees, or 94.5%(35), had worked in M&E for a long time—between one and five years. As a result, they had some knowledge of how funds are allocated, the role of top management support, M&E tools and approaches, and how human capacity affects effectiveness. various mechanisms for review and monitoring.

Budget Allocation for Monitoring and Evaluation

The goal of the study was to evaluate the difficulties in allocating funds for project monitoring and evaluation in the areas of environmental protection and rural land administration in the Somali regional state. In order to evaluate the issues associated with budget allocation for monitoring and evaluation (M&E) of projects, participants are asked to rank their agreement or disagreement with the following statements regarding M&E of budget allocation challenges

Journal of Information Systems Engineering and Management
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https://www.jisem-journal.com/

Research Article

related to the projects of the organization. The responses were rated on a five point Likert scale where: 5 – Strongly agree, 4 – Agree, 3 – Neutral, 2 – Disagree, 1 – Strongly disagree. Table 4.6 shows the mean and standard deviations.

Table 4. 5 Budet allocation challenges for M& E

Statement	Mean	Std. Deviation
the organization provides sufficient funds for monitoring and evaluation activities (about 5%-10% of project budget)	2.59	1.707
the organization ensures there is timely provision of funds for M&E	2.65	1.252
monitoring and evalution budget can be delineated within the overall project budget to give the monitoring and evaluation function the due recognition it plays in project running.	3.25	1.296
there is autonomy in the budgetary decisions for the monitoring and evaluation unit.	2.70	1.199
funds allocated are used for monitoring and evaluation activities only.	3.11	1.449
Overall Mean	2.86	

From the findings, majority (51.4%) of the respondents Strongly disagreed with the statement that the organization provides sufficient funds for the monitoring and evaluation activities (5% - 10% of project budget) with a mean score of 2.59. Other 29.7% of respondents disagreed that with the statement the organization ensures there is timely provision of funds for M&E with mean scores of 2.65. 45.9% of respondents agreed with the statements there is autonomy in the budgetary decisions for the monitoring and evaluation unit, monitoring and evaluation budget can be obviously delineated within the overall project budget to give the monitoring and evaluation function the due recognition it plays in project running and funds allocated are used for M&E activities only with mean scores of 3.25, 2.70, and 3.11 respectively. The overall mean of challenges related to budget allocation is 2.86.

Importance of Data Management System Application in M and E activies

Importance of Data management System	Frequency	Percent
Not important at all	0	0
Less important	1	0.37
Important	11	30
Very important	25	69.63
Total	**37**	**100.0**

Journal of Information Systems Engineering and Management
2025, 10(51s)
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https://www.jisem-journal.com/

Research Article

From the study findings, its imperative that the importance of data management system in complex project activities like monitoring and evaluation is very important. More than two-third (69.63%) of the study participants opted as very important when it comes to the role relevant data management system in projects monitoring and evaluation. Around one-third of the study participants also responded important.

Top Management support for monitoring and Evaluation

The goal of the study was to ascertain how top management addressed the difficulties associated with project monitoring and evaluation in Somali regional state environmental protection and rural land administration. Respondents are asked to indicate how much they agree or disagree with the following statements on top management support in M&E in respect to the organization's projects in order to assess top management support associated issues of Monitoring and Evaluation of projects.

The responses were rated on a five point Likert scale where: 5 – Strongly agree, 4 – Agree, 3 - Not sure, 2 – Disagree, 1 – Strongly disagree. Table 4.8 shows the mean and standard deviations.

Table 4. 6 Top Management Support in M&E

Statements	Mean	Std. Deviation
Senior management take active part in designing the monitoring systems.	2.92	1.656
Top management ensure that staff are trained on monitoring and evaluation regularly.	2.42	1.156
The organization uses monitoring and evalution findings in decision making.	3.09	1.401
Top management always and clearly communicate monitoring and evaluation results.	3.11	1.329
Top management allocate sufficient resource for monitoring and evaluation..	2.84	1.280
Organizational policy supports monitoring and evaluation	3.35	1.184
There is supportive supervision and guidance from leaders	3.24	1.234
The monitoring and evaluation activities are carried out within schedule	3.51	1.387
Overall Mean	3.06	

According to the results, 35.1% of respondents disagreed that senior management allocates enough resources for M&E With a mean score of 2.84. 32.4% of respondents agreed with the following claims: top management always and clearly communicates M&E outcomes; top management ensures that staff members receive regular M&E training; and organizational policy supports M&E. These statements had mean scores of 3.35, 3.11, and 2.42,

Journal of Information Systems Engineering and Management
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https://www.jisem-journal.com/

Research Article

respectively.,. Furthermore, 32.4% of participants With a mean score of 3.06, strongly agreed with the statements that M&E tasks that are completed on schedule.

With a mean score of 2.92, 35.1% of respondents strongly disagreed with the statement that senior management actively participates in the design of M&E systems. The claim made by 29.7% of respondents that the organization uses M&E findings was accepted. mean scores of 3.09 for decision-making, and mean scores of 3.24 for 32.4% of respondents who agreed with the assertion that leaders provide helpful monitoring and assistance.

M & E tools and approaches

The study also looked at how monitoring and evaluation techniques and tools relate to environmental protection and rural land management programs in Somali regional states. Respondents are asked to indicate whether or not they agree with the following statements regarding M&E tools and approaches in relation to the organization's projects in order to identify challenges related to M&E tools and approaches of Monitoring and Evaluation of projects in Somali Regional State Environmental Protection and Rural Land Administration.

The responses were rated on a five point Likert scale where: 5 – Strongly agree, 4 – Agree, 3 - Not sure, 2 – Disagree, 1 – Strongly disagree. Table 4.10 shows the mean and standard deviations.

Table 4. 7 M&E Tools and Approaches

Statements	Mean	Std. Deviation
M&E Tools and Methods are difficult to use.	2.62	1.587
Projects use scientifically valid standards of monitoring and evaluation tools, methods and approaches.	2.92	1.498
Logical frameworks are drafted at the design phase.	2.92	1.320
The logical frameworks provides the intended outcomes of projects.	3.08	1.320
The logical frameworks provides the planned outputs of projects.	3.56	1.362
M&E Tools and Methods use measureable objective, baseline, performance indicator, target and periodic reporting tool.	3.59	1.040
The logical frameworks clearly defines the indicators to track progress of projects.	3.35	1.317
Overall Mean	3.14	

The results showed that, with a mean score of 2.62 and 2.92, respectively, 40.5% of the respondents strongly disagreed with the claims that projects employ scientifically valid standards of monitoring and evaluation tools, methods, and approaches, and that M&E tools and procedures are difficult to use. With a mean score of 2.92, 35.1% of respondents also disagreed with the statement that logical frameworks are written during the design phase.

27.0% of respondents agreed with the statement that the logical frameworks provides the intended outcomes of projects a mean score of 3.08. 56.8% of respondents also agreed with the statement that the logical frameworks provides the planned outputs of projects with mean score of 3.56. 56.8% of respondents agreed with the statement that M&E Tools and Methods use measureable objective, baseline, performance indicator, target and periodic reporting tool with a mean score of 3.59. 40.5% of respondents agreed with the statement that the logical frameworks clearly defines the indicators to track progress of projects with a mean score of 3.35.

Journal of Information Systems Engineering and Management
2025, 10(51s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Human Capacity for monitoring and evaluation

The goal of the study was to determine how monitoring and evaluation of programs carried out by the Somali regional state of environmental protection and rural land administration are affected by issues relating to human capability. The survey asked respondents to rate their agreement or disagreement with the following aspects of the monitoring and evaluation process regarding human capability as it relates to the problems of monitoring and evaluating projects in SRS EPRLA.

The responses were rated on a five point Likert scale where: 5 – Strongly agree, 4 – Agree, 3 - Not sure, 2 – Disagree, 1 – Strongly disagree.

The mean and standard deviations are indicated in Table 4.12.

Table 4. 8 Human Capacity for M & E

Statements	Mean	Std. Deviation
Numerous training manuals, handbooks and toolkits have been developed for staffs working in M & E	2.78	1.635
The organization has skilled personnel with adequate capacity to analyze data	2.65	1.418
The monitoring and evaluation officers are knowledgeable in the day to-day management of monitoring and evaluation systems	2.97	1.258
Proper training and experience is vital for M&E results	3.27	1.557
There are huge gaps in technical knowledge with regard to defining performance indicators, the retrieval, collection, preparation and interpretation of data	3.27	1.262
The organization engage in training of the employees on monitoring and evaluation systems	3.32	1.355
Staffs in M & E have defined role and responsibilities	3.32	1.473
Overall Mean	3.08	

According to the results, 32.4% of the participants expressed agreement with the claims made by the company regarding employee training on monitoring and evaluation systems, whereas the employees received mean scores of 3.32. With mean scores of 2.78, 37.8% of respondents strongly disagreed with the assertion that a large number of training manuals, handbooks, and toolkits had been prepared for staff members working in M & E. With a mean score of 2.97, 29.7% of respondents also concurred that monitoring and evaluation personnel are informed about the day-to-day operation of monitoring and evaluation systems.

40.5% of respondents agreed that there are significant gaps in technical knowledge with regard to defining performance indicators, the retrieval, collection, preparation, and interpretation of data, with mean scores of 3.27. 32. 37.8% of respondents disagreed that appropriate training and experience is vital for M&E results.32.4% of respondents agreed with the statement that the organization has skilled personnel with adequate capacity to analyze data, while 4% strongly agreed with the statement that staff members in M&E have defined roles and responsibilities (mean scores of 3.32).

Journal of Information Systems Engineering and Management
2025, 10(51s)
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https://www.jisem-journal.com/

Research Article

DISCUSSION

For the first objective of the study was to assess challenges of food security related developmental projects monitoring and evaluation and particularly budget allocation related challenges at Somali regional state environmental protection and rural land administration. From the findings, 51.4% of the respondents strongly disagreed that the organization provides sufficient funds for the monitoring and evaluation activities (5% - 10% of project budget). This shows that the organization allocates insufficient budget for M & E. The amount allocated was not between 5-10% of the projects budget as Kelly and Magongo (2004) recommends and the funds were not used specifically for M&E activities. This indicates that sufficient funding is very crucial for the system to be effective and M & E process to take place. Lack of adequate M & E budget is a hindrance to the success of the system and process and organizations should ensure they have set aside sufficient funds to support monitoring and evaluation activities. Therefore, sufficient funding plays a crucial role in M & E project function in that enough funds are required for the process to be carried out successfully and effectively. When it comes to the role of data management system in averting the challenges of monitoring and evaluation, almost all of the respondents (99.67%) opted very important and important. This indicates how digitalizing the activities and developing sophisticated data management system is crucial to address the challenges of monitoring and evaluation.

Other 29.7% of respondents disagreed that the organization ensures there is timely provision of funds for M&E with mean scores of 2.65This shows that there is no timely separate budget allocation for M&E system and there is no independency in the budgetary decisions for the monitoring and evaluation unit. Some projects management activities which are not part of M&E are also funded from monitoring and evaluation allocation. As Gyorkos (2003) noted that M&E budgetary allocation should clearly be delineated from the main project budget so that M&E unit is accorded some autonomy in utilization of its resources. Funds also should be timely provided and specifically used for M&E activities.

The second objective of the study was to determine and assess top management support related challenges of Monitoring and Evaluation of projects implemented at Somali regional state of environmental protection and rural land administration. From the findings, 35.1% of respondents disagreed that senior management allocates enough resources for M&E, 35.1% of respondents strongly disagreed with the statement that senior management actively participates in the design of M&E systems. The results therefore indicate top management does not allocate sufficient resource for M & E and senior management does not ensured that staff are trained on M&E regularly. Top management must demonstrate strong commitment towards implementing a strong and sustainable monitoring and evaluation systems for effectiveness of their projects.

For the third objective of the study was to identify and assess M & E tools and approaches related challenges of Monitoring and Evaluation of projects at Somali regional state environmental protection and rural land administration. From the findings, 40.5% % of the respondents strongly disagreed with the claims that projects employ scientifically valid standards of monitoring and evaluation tools, methods, and approaches. 56.8% of respondents also agreed with the statement that the logical frameworks provides the planned outputs of projects and . 40.5% of respondents agreed with the statement that the logical frameworks clearly defines the indicators to track progress of projects. 56.8% of respondents agreed with the statement that M&E Tools and Methods use measureable objective, baseline, performance indicator, target and periodic reporting tool. 40.5% of respondents agreed with the statement that the logical frameworks clearly defines the indicators to track progress of projects.

The results of the study therefore indicate that most staff employees working for projects at Somali regional state environmental protection and rural land administration agreed that M&E Tools and Methods use measureable objective, baseline, performance indicator, target and periodic reporting tool. Hence, initial baselines ought to be properly estimated against which progress at the end of the project will be compared. M&E Tools and approaches should provide measurable indicators, baselines and targets must be clear and designed at the initial phase of projects. As Cameron (1993) distinguished, logical frameworks must be drafted at the identification phase and formal and informal measurement practices will have to be combined. Projects require various M&E tools and methods depending on the operational context, executing agency ability and donor requirements. It is therefore important when preparing an M&E plan to identify methods, procedures, and tools to be used to meet the project's M&E needs.

Journal of Information Systems Engineering and Management
2025, 10(51s)
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Research Article

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