UNIVERSITY OF NAIROBI

POPULATION STUDIES AND RESEARCH INSTITUTE

ASSESSMENT OF M&E SYSTEM OF THE CENTRE FOR MATHEMATICS, SCIENCE AND EDUCATION IN AFRICA (CEMASTEA)

A Research Project Report Submitted in Partial Fulfillment of the Requirements for the Award of A Degree of Master of Arts in Monitoring and Evaluation of Population and Development Programmes.

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DECLARATION

Am humbled to declare this project report as my own original work which has not been presented in any university for a degree award. .

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DEDICATION

To my wife Dorothy Awuor and children, Brenda, Belinda, Sonia and Sean for their love and support. To my parents Mr. Pius Olwa and Mrs. Mary Olwa for good parental guidance and provisions.

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LIST OF ACRONYMS AND ABBREVIATIONS

AfrEA –   African Evaluation Association

AIDS –   Acquired Immune-Deficiency Syndrome

ASEI –   Activity, Student, Experiment and Improvisation

CDE –   County Director of Education

CEMASTEA –Centre of Mathematics, Science and Technology Education in Africa

CPC –   County Planning Committee

CPM –   Critical Path Method

DAC –   Development Assistance Committee

DDC –   District Development Committee

DFRD –   District Focus for Rural Development

EMIS –   Educational Management Information system

ERS –   Economic Recovery Strategy

FHI-   Family Health International

GOK –   Government of Kenya

HIV –   Human Immunodeficiency Virus

HMIS –   Health Management Information system

HOD –   Head of Department

ICADETA – Institute for Capacity Development for Teachers in Africa

ICT –   Information Communication Technology

IEG –   Independent Evaluation Group

IFC –   International Finance Corporation

IMF –   International Monetary Fund

INSET –   In-Service Education and Training

JICA –   Japanese International Cooperation Agency

KEMI –   Kenya Education Management Institute

KNEC –   Kenya National Examinations Council

M&E –   Monitoring and Evaluation

M&E –   Monitoring and Evaluation

MIGA –   Multilateral Investment Guarantee Agency

MOEST   –   Ministry of Education Science and Technology

NACA   –   National Agency for Control of AIDs

NDP –   National Development Plan

NIMES -   National Integrated Monitoring and Evaluation System.

NNRIMS   –   Nigeria National Response Information Management System

NSO –   National Statistics Officer

OECD –   Organization for Economic Cooperation and Development

PDSI –   Plan, Do, See and Improve

PEC –   Presidential Economic Commission

PET –   Public Expenditure Survey

PRS –   Poverty Reduction Strategy

PTTC –   Primary Teachers Training College

QASO –   Quality Assurance and Standard Officers

SCDE –   Sub-County Director of Education

SDGs –   Sustainable Development Goals

SDO –   Sports and Development Organization

SMASE –   Strengthening of Mathematics and Science Education

SMASSE –   Strengthening of Mathematics and Science in Secondary Education

SWAPs –   Sector-Wide Approaches

TCDT –   Teacher Capacity and Development of Teachers

TCTP –   Third Country Training Programme

TNA –   Training Needs Assessment

TSC –   Teachers Service Commission

UNAIDS –   United Nations Programme on HIV/AIDS

UNICEF –   United Nations Children Fund

USAID –   United States Agency for International Development

WECSA –   Western, Eastern, Central and South Africa

ABSTRACT

The main objective of this research was to determine the status of the CEMASTEA M&E system and its contributions towards the improvement of the programme. The assessment targeted at: Establish the level to which the system meets the required standards; revealing strengths and gaps identified after the investigation; and determining how its products have been used to improve the CEMASTEA programmes.

The assessment applied a cross-sectional design which was the most convenient for this research and was descriptive in nature. There was use of mixed-methods approach to collect and process quantitative data. Cross-sectional research design used allowed for description of the current CEMASTEA M&E system and helped to reveal strengths and gaps which were required for the realization of research objectives. The assessment focused on the CEMASTEA headquarters offices in Nairobi with a sample size of 20 out of 60 staff members.

Data was collected through document review, questionnaires and discussions and eventually analyzed quantitatively to produce the result. The study was informed by the 12 domains recommended for the Participatory M&E System based on the Organizing Framework for the 12 Components by UNAIDS (2008).

The discussions of the results are integrated with the findings. Also integrated with the findings and discussions are relevant M&E issues that arose during the assessment. They are presented as areas that supported the effective implementation of INSET programme and therefore areas that can be capitalised on as well as areas that need improvement. Every effort was made to give an overall picture of the findings. The key strengths of the system include: inventory of research studies, guidance on appropriate monitoring and evaluation standards, forum for information dissemination, use of standardized data collection tools, presence of M&E databases to track progress, continuous data analysis and use of research and evaluations to improve programme.

In conclusion it is evident that CEMASTEA M&E system is a good case worth sharing. At 56 percent, the M&E system is was rated 'moderate', with areas for improvement highlighted. In terms of practice, a lot is taking place as far as M&E is concerned notably, in data quality systems, data analysis and use and evaluation. However, other components need strengthening with critical focus on documentation and data verification. The ongoing process of reviewing the M&E plan should directly address the documentation aspect. With the emphasis of continuous management support, resource allocation and assessment for improvement, CEMASTEA's M&E system can be an exemplary system for adoption by other institutions.

CHAPTER ONE
INTRODUCTION

1.1. Background Information

Monitoring and Evaluation system is defined as a set of procedures which are giving direction on how information flows in an organization to different management departments for decision making and learning (MDF, 2011). Many organizations formally or informally develop and use their information system for M&E work and call it M&E system. As a result of activities monitoring, the organization is able to keep track of the progress of the intervention.. The M&E system is designed in such a way that it always focuses on processing and archiving monitoring data and making room for up-loading the evaluation reports.

One of the key management tools critical for enhancing sound governance is M&E. It provides evidence used in policy decisions and evaluating effectiveness of a development program. World Bank and IMF (2005) understood the significance for strong and vibrant systems necessary for enhancing effective development initiatives and accountability. There was globalization pressure on all programme management to take full responsibility to the demands of stakeholders for good governance. A functional system is a viable strategy that can be applied in the betterment of the operation of the projects. Monitoring and evaluation in Kenyan organizations has not yet reached an acceptable level of operation (Odhiambo, 2000).

Estrella and Gaventa (1997) acknowledge that M&E had evolved over time to the need for result- based management, limited resources and involvement of non-state actors in development. In Kenya M&E has evolved with time. The first National Development Plan (NDP) 1966–1970 was targeting raising standards of living of Kenyan citizens (GoK, 1966).

 In 1970s the common practice was for projects to have M&E unit and the main purpose was to be used as a management tool. The second NDP (1970 - 1974) targeted at achieving economic independence of the country. In the 1980s the focus shifted from the project to sector wide approaches (SWAPs) and many monitoring activities were moved and re-centered to the project level. The result-based

management gained popularity with the beneficiaries in focus. Emphasis was made for measurement of results which called for need of wider range of data tools and resources.

In the 1990s poverty issues in Kenya was the main focus. The seventh NDP (1994 - 1996) theme was *"mobilization of resources for sustainable development"*. Identified was that despite the much previous effort, the country still lacked a method for M&E implementation. During the year 2000, the need for effective monitoring was realized and poverty index went up in most countries. The first target was the year 2015 for achieving the millennium development goals.

The Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA) has been mandated by the Ministry of Education, Science and Technology (MOEST) to capacity-build mathematics and science teachers to deliver lessons in ways that enable students to engage and participate in the teaching and learning process in meaningful ways. CEMASTEA achieves this mandate through In-service Education and Training (INSETs) for serving mathematics and science teachers at two levels, national (at CEMASTEA) and County/Sub-County. At the national level, key trainers, County/Sub-County trainers are trained. Following this trainers the County/Sub-County trainers are expected to cascade the same training to the teachers in their respective Counties/Sub-Counties.

The CEMASTEA M&E system is for the purpose of systematically collecting and analyzing data on the implementation of INSET activities. The information generated from the system is used to improve the efficiency and effectiveness of the INSET content development and implementation of the programme. The M&E is integrated with Research and Development composed of the director, deputy director, 8 M&E technical team who are also departmental heads, 2 field coordinators and 4 county trainers and 4 national trainers. The eight M&E technical team members who are drawn from various departments are the links between the system and the various departments. CEMASTEA INSET for secondary education occupies two levels of the cascading training system: "national INSET" and "county INSET." The purposes of the two INSETS are training of county trainers and retraining of mathematics and science teachers respectively. The designing of INSET curriculum and teaching

materials and the monitoring of national INSET are carried out by CEMASTEA with support from Japanese experts. The County Planning Committee (CPC) is in charge of planning and management (including accounting) for county INSET. However, installation of the county INSET centers and development of the county INSET system were done by the Japanese experts.

From the literature reviewed it is not known when the CEMASTEA M&E system was developed. Data collection of County INSET is undertaken by the math and science teaching staff trainers using data collection tools namely: trainers' ability checklist, INSET management checklist and trainers/ trainees biodata. The county coordinators visit the training centres every month to establish the quality of INSET conducted as well as receiving the data collected by the training staff. Once data is collected, it is summarized in summary forms and reported to the head office on a monthly basis where data is compiled for all training sites and stored in relevant data bases. At the headquarters, the research coordinator and research assistant in the Research and Development Department use excel spreadsheet and other relevant tools to analyse the data. The research coordinators then writes a final report called 'global' report for sharing by all stakeholders.

Data collection is usually done in line with project indicators that are aligned to donor and government requirements. Project indicators are developed during project design in consultation with stakeholders such as Teachers, Ministry of Education, Teacher Service Commission, Science and Technology (MOEST) its parent ministry, Kenya Institute of Special Education, Kenya Institute of Curriculum Development, Kenya Education Management Institute (KEMI), Training College for primary teachers, SMASE- members, Kenya National Examination Council (KNEC), partners, African Unions Ministers of Education, Teachers Groups, African Union Commission, Professional Bodies, students as well as the parents. The CEMASTEA project has a performance matrix for tracking the indicators.

Performance of INSET projects is usually measured through baseline, mid-term and end evaluations. CEMASTEA Research and Development department coordinator ensures that data is used and disseminated for it to be meaningful. Data is usually used for target setting, tracking performance against targets, reviewing programme

implementation strategies, proposal development and reporting to donors and stakeholders. For example in 2015, 82 out of 87 INSET centres that conducted INSET were visited and observed during INSET by CEMASTEA staff. A total of 8481 out of the expected 9484 mathematics and science teachers were trained during 2015 County INSET. Furthermore, most of the INSET centres held INSET of good quality in terms of facilitation and management. Dissemination of M&E results to stakeholders is usually done on an ongoing and needs-basis through workshops, emails and conferences among others to encourage knowledge sharing.

1.1.1 The Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA)

This centre is a public institution in Kenya under the Ministry of Education Science and Technology (MOEST). The centre is located in Karen-Nairobi at the Karen - Bogani road junction. The centre has grown in many areas like the physical structures and quality of training projects developing wholistic teachers and educators' capacity development in the country. CEMASTEA is mandated to build the capacity of mathematics and science teachers for effective teaching and learning. The centre is known to be implementing in-service education programmes for mathematics and science teachers since 2004. The programme's main goal is, "to scale up capability of young Kenyan learners in Mathematics and Science" started in 1998 and were implemented in three (3) phases as technical cooperation projects with the Government of Japan through JICA.

Phase I (1998-2003) was implemented targeting secondary schools in selected districts in the country hence the basis for the establishment of CEMASTEA in 2004. Under Phase II (2004- 2008), INSET programmes were extended countrywide. Other African countries were also brought onboard and an Association formed to create synergy in addressing challenges affecting M&S education in African countries brought together thirty four African countries. Fifteen of these countries have since adopted or adapted Kenyan INSET model to improve skills of their mathematics and science teachers. CEMASTEA with support from JICA became the secretariat of the association and successfully implemented the Third Country Training Programme for African countries. In Phase III (2009- 2013), the inclusion of INSET programmes for primary education necessitated name-change from SMASSE to SMASE project. SMASE Project for primary M&S teachers was implemented through a three tier

cascade system comprising National, Regional and Cluster levels. Sensitization workshops for secondary school leadership and other stakeholders to provide pedagogical leadership were also conducted. Though the technical cooperation period with JICA on SMASE Project came to an end on December 31, 2013; the Government of Kenya is continuing with the implementation of the CEMASTEA projects under the Ministry of Education, Science and Technology (MOEST).

CEMASTEA is governed by a Council with the Director as the Chief Executive Officer and Secretary to the Council. The Director is assisted in the management of the institute by Deputy Directors and Assistant Directors in charge of technical and corporate affairs departments. The corporate department has the following sections: Finance and Accounts; Human Resource Management; Resource and documentation; Administration; ICT Services; Hospitality and Corporate Communications. The technical department is divided into 2 departments with deputy director for Training and deputy director for Research, Innovation & Linkages. The training department has the following sections: Registry and Student Affairs; Sciences; Mathematics; and ICT Integration in Education. The department of Research, Innovation and Linkages has the following sections: External Linkages; County INSET Coordination; Innovation & Production; Quality Assurance; and finally Knowledge and Research Management under which monitoring and evaluation falls.

The stakeholders of the CEMASTEA include; Teachers, Ministry of Education, Teacher Service Commission, Science and Technology (MOEST) its parent ministry, Kenya Institute of Special Education, Kenya Institute of Curriculum Development, ,Kenya Education Management Institute (KEMI), Training College for primary teachers, SMASE- members, Kenya National Examination Council (KNEC), partners, African Unions Ministers of Education, Teachers Groups, African Union Commission, Professional Bodies, students as well as the parents.

It is true that monitoring and evaluation system of CEMASTEA in history has never been comprehensively assessed which poses a challenge to the process of strengthening the system. It is important to note that currently, CEMASTEA is being transformed to Institute for Capacity Development of Teachers in Africa (ICADETA) and implementing ICADETA Strategic Plan (2014-2019). The process entailed

consultative workshops, situational analysis, review of the implementation of CEMASTEA Strategic Plan (2009-2013), generation strategic issues and drafting. The draft plan was then validated by CEMASTEA staff and management. A validation workshop was then conducted with external stakeholders and a consultant before the plan was presented to the Board of Management. It was then edited, authenticated and launched. It is also important to note that the name of the organization has not been officially changed from CEMASTEA to ICADETA.

1.1.2 CEMASTEA's M&E of County In-Service Education and Training (INSET)

The major function of CEMASTEA is to coordinate and provide educational training services. It has largely developed in two ways: physical infrastructures and training programmes' quality to offer Capacity and Development of Teachers (TCDT) in Kenya. INSET for secondary education occupies two levels of the cascading training system: "national INSET" and "county INSET." The purposes of the two INSETS are training of county trainers and retraining of mathematics and science teachers respectively. The designing of INSET curriculum and teaching materials and the monitoring of national INSET are carried out by CEMASTEA with support from Japanese experts. The County Planning Committee (CPC) is in charge of planning and management (including accounting) for county INSET. However, installation of the county INSET centers and development of the county INSET system were done by the CEMASTEA and Japanese experts. For effective and efficient Monitoring, Evaluation and Reporting: A clear and institutionalized monitoring, evaluation and reporting system was set to provide timely feedback for decision making at all levels of INSET management (ICADETA, 2014).

M&E systems are significant in knowing and promoting development projects with the desired outcomes and impacts on the targeted beneficiaries. Strong M&E systems usually contribute to the expected development outcomes and good governance whereas weak M&E systems can lead to poor development outcomes (Thomas, 2010). A number of research studies have been done about CEMASTEA organization including: The training needs assessment (TNA) for secondary school teachers was conducted in March 2015. This study involved secondary school mathematics and science teachers, principals of schools, Officers from the County Education Standards

and Quality Assurance Council (ESQAC) and students in selected counties; The Tracer Study had also been conducted. This study was conducted in February 2015 to document classroom practices of teachers who have undergone Strengthening of Mathematics and Science Education (SMASE) training; The CEMASTEA Project Evaluation has also been carried out where the success of SMASSE as a technical assistance project was evaluated on the five Development Assistance Committee (DAC). From the many studies done on CEMASTEA only its M&E system has not been comprehensively assessed which poses a challenge to the process of strengthening its monitoring and evaluation system. Most studies done about CEMASTEA are focusing on evaluation of the specific projects. Equally, these studies do not look at the M&E system assessment of CEMASTEA and leaving a gap which this study attempts to fill.

1.2 Problem Statement

In most cases the programmes and projects in Kenya are run throughout without M&E system assessment done. The literature review and informal interview with the CEMASTEA M&E staff members revealed that no assessment has been done on its M&E system. It is therefore not known whether the system is working as intended or not and whether all its components are functional or not. No assessment research has revealed the challenges and solutions for the CEMASTEA's M&E system.

It is worth noting that CEMASTEA has made good progress to institutionalize M&E practice. However, institutionalization of M&E by organizations is as a result of great push by fund raisers with an aim of showing whether the programmes are working towards achievement of the desired outcomes or not (Liket et al. 2014). The M&E content and format are outlined in the plans, but more often than not, are not operationalized, nor is M&E appreciated (Karani et al., 2014). Karani has also made observations that M&E is yet to be properly formalized in both public and private organizations.

UNAIDS (2008) asserts that M&E systems provide programmes with integral Management tools since they provide the programme management teams, funders, decision makers and other stakeholders with the opportunity to collect and analyze information on interventions and make decisions that can ultimately produce optimal

(or better) results. The assessment plays a very important role to the CEMASTEA M&E system in terms of identifying its strengths and weaknesses. FHI 360 (2013); World Bank and UNAIDS (2009) and Global Fund et al. (2006) emphasize the importance of periodically conducting an organization's M&E system assessment. It helps the programme managers to know the status of the system and identify areas of improvement.

For the above reasons, the need to pay specific attention to the nature and use of M&E systems to enhance project/programme efficiency, effectiveness and impact cannot be understated (Karani et al., 2014). "If you can't measure how well you are doing against targets and indicators, you may go on using resources without changing the conditions you have recognized." Karani et al., (2014). In the context of development programmes, the measurement being referred to by Karani et al. (2014) cannot become a reality without strong systems. Assessment is critical in ensuring that programmes are continuously improved in response to the complex and rapidly changing development arena (FHI 360, 2013; World Bank, 2009; UNAIDS, 2009 and Global Fund et al., 2006). The CEMASTEA M&E system is a very important resource to the policy makers, donors and the stakeholders in terms of the quality of evidence generated .The policy makers need the information generated from M&E functions to improve their policies while donors and stakeholders need M&E findings to ensure accountability of resources while at the same time making better overall effectiveness of the policies (Mackay, 2007). M&E system therefore provides the necessary feedback for CEMASTEA development and policy interventions. This area has not received the much needed attention (Nduati, 2011 and Mackay et al, 2007).

1.3 Research question
Does the M&E system of CEMASTEA meet established M&E standards?

1.4. Research Objectives

General objective

The main assessment objective was to determine the current M&E system status of CEMASTEA and its contributions toward the improvement of the programme.

Specific objectives

1. Determine whether the M&E system of CEMASTEA complies with the established M&E System standards.
2. Determine how the products of the CEMASTEA M&E system are used to improve the programme.
3. Identify the challenges facing the CEMASTEA M&E system.

1.5. Study Justification

The monitoring and evaluation system assessment can prevail a clear picture of its success and failure. This is significant when developing an action plan which is conveniently tailored to the vision of the future expected uses of the monitoring and evaluation reports for the organization. This assessment being the first one for the organization, will offer a baseline platform against which future improvements would be evaluated, and further modifications made to the system. The process of conducting the assessment provides a vehicle for involving all the key stakeholders in the programme with consideration of the purpose and use of the organization's M&E system(s). The assessment could reveal unexpected findings about multiplicity of unmatched and duplicative functions in operating the system. Such findings could be useful in fostering consensus on an action plan in order to strengthen the CEMASTEA M&E system.

The significance of M&E role within organizations has been boosted by the fast growing voice of the key stakeholders with questions of good governance and better administration being in the limelight (Odhiambo, 2000). Globally, there is a paradigm shift towards more transparent, accountable and effective governments and this has bolstered the need for stronger M&E systems. Over the years, the importance of M&E has been elevated due to the stagnant and/or negative economic growth as more development actors question the usefulness and effectiveness of development efforts (Karani et al., 2014). This assessment will reveal mistakes and offers paths for learning and improvements for CEMASTEA entire organization.

Since no assessment has been done on the CEMASTEA M&E system it is therefore not known whether the system is working as intended or not. Not much is known about the CEMASTEA M&E system including its M&E structure, its M&E system components, whether all its components are functional or not. These questions informed my decision to assess all the 12 components to establish what is there and what is missing.

This assessment is meant for revealing detailed information whether the system conforms to the standardized monitoring and evaluation practices. Besides, it is also purposively meant for identifying the challenges experienced by the CEMASTEA M&E system and recommend some solutions that can be used to improve the system. The bone of contention however is: - does the CEMASTEA M&E system comply with prescribed and standardized M&E system? If the answer is no, then this research will reveal the reasons/challenges and propose possible solutions. The assessment results will be used for learning to improve the CEMASTEA M&E system.

This assessment is motivated by the fact that CEMASTEA is one of the government educational institutions in Kenya with an M&E system. Most of the educational institutions only have Education Standards and Quality Assurance systems. CEMASTEA being a research centre, from this assessment other institutions or organizations can learn about the significance of an M&E systems and draw valuable lessons. An assessment is necessary to determine the status of the system in providing accurate data and evidence use in decision making. The CEMASTEA M&E system has not been assessed to establish whether it produces quality information to inform decision making, and to establish how information generated by the system is used. The study therefore sought to address this gap by assessing the 12 key components of the system. Furthermore, the recommendations generated from the assessment can be used to strengthen and improve the CEMASTEA M&E system. This investigative reaseach will make a contribution to the existing M&E body of knowledge.

1.6. Scope and Limitations of the Study
The literature focuses on how the 12 components can be improved and areas to focus on during M&E system strengthening process. In addition, conducting data collection and analysis on all the indicators will not be possible due to time constraints. There is

no literature available on the assessment of CEMASTEA M&E system. The study covered only one site i.e. CEMASTEA headquarters in Nairobi Karen with about 60 members of staff. It focused on assessing the M&E system without looking at other organizational level systems. Since the research design used in this assessment is a non-experimental design without the comparison group it was not possible to determine what would have happened in the absence of the M&E system.

There is no literature on which score of an M&E system can be graded using ordinal scale- non numeric with order and rank but the differences between each one is not really known. For example, if an M&E system scores 49 percent, there is no literature indicating whether this should be graded as 'good' or 'poor'. Literature on M&E system assessments only focuses on how each component can be improved and areas to focus on during M&E system strengthening process. Besides, carrying out data verification on all the indicators was not done due to the fact that similar and repeated performance indicators were matched and standardized.

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction

This chapter focuses on literature on M&E systems, bringing out the merits of a comprehensive system considering 12 M&E components. In addition, the chapter gives an account of a plausible operational framework depicting its 12 key component indicators.

2.2. A Monitoring and Evaluation System

According to MDF (2011) many organizations formally or informally develop and use their information system for Monitoring and Evaluation purposes, and call it M&E system. The activities are based on planning and are separate exercises. Through monitoring activities the organization keeps track of the progress of the intervention. Evaluation exercises focus more on an assessment of the intervention as per the set evaluation criteria. The M&E systems are mostly designed in such a way that they focuse on processing monitoring data and leave room for up-loading the evaluation reports. The system should be enable to track verifiable data and translates it into valuable management information. The accessibility and transparency are key for a system to promote the sharing and exchanging of experiences and lessons learned in order for decision makers to translate this into corrective action. An M&E system is a collection of people, procedures, technology and data that effectively interact to make available timely information for all authorized decision-makers.

2.3. Importance of an M&E System

 According to UNICEF (2003) two primary purposes of monitoring and evaluation are drawing lessons for stakeholders' learning and holding the management accountable. The two purposes are in most instances posed in opposition. Dialogue and participation are necessary for consensus building, but independent external evaluation is the best option   for accountability. It is important for an organization to set a Monitoring and Evaluation (M&E) system as it assists in the understanding of organization's M&E efforts.

Maphunye (2013) also added that is worth noting that information generated when using the system will help with a clearer understanding of the present M&E initiatives, the overall organization where the system is used and the various institutional arrangements involved.

FHI 360 (2013) defined am M&E system as a guiding process of collecting, analyzing, and using data purposively for measuring and documenting achievements and steadily generating information for program planning and policy decisions. The M&E systems are expected to be efficiently and effectively established to guide the complex cycle of the programs and projects of the organizations.

2.4. M&E system components

The overview of the twelve components of an M&E system is given in this chapter. The outer part of the circle represents the resources, partnership and planning. It involves organizational culture, individuals, functions and actions that are key to M&E system performance. The innermost part represents the core purpose meaning the use of data for decision making (UNAIDS, 2008).

UNAIDS (2008) and Mackey (2009) categorize the 12 Components into three main areas: Components relating to people (Organizational structures; human capacity; partnerships; work plans and cost; M&E plans; Advocacy & culture), Components for data collection & verification (Surveys; Monitoring; Databases; Data auditing and supervision; Evaluation & research) as well as component for data use in decision making (Using information to improve results). These twelve M&E components are discussed in detail below:
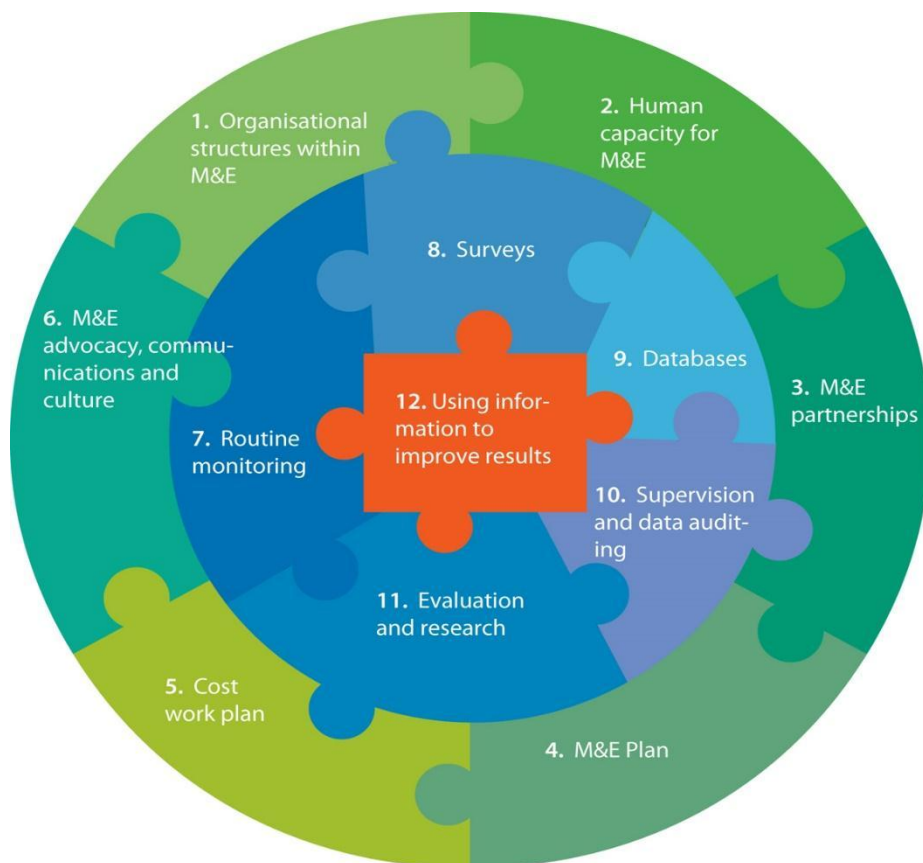
Figure 2.1: Organizing Framework for the 12 Components of a Functional M&E System

Source: UNAIDS (2008)

In putting the monitoring and evaluation mechanism in place, organizations borrow heavily on the systems approach (Laszlo & Krippner, 1998). Laszlo and Krippner identify a system as "a group of interacting components that conserve some identifiable set of relations with the sum of the components plus their inter-relations conserving noticeable set of relationships with other entities". Therefore based on this definition it is arguable to assert that an M&E system would collapse if any of its components failed to work in harmony with other components of the system and the whole system. This assertion is consistent with the second law of thermodynamics stating that "entropy in most cases increases in any closed system which is not in balance, and remains constant for a system which is in balance." The following are the key descriptions of the 12 components.

Organizational Structures with M&E Functions

The most adequate implementation of monitoring and evaluation at any level needs an M&E unit whose main purpose is to harmoniously supervise and coordinate all the M&E functions. More often than not some organizations would prefer having an internal department to coordinate its M&E functions while others prefer to outsource the services. This component stresses the significance of an M&E unit within an organization. It points out how elaborative the M&E roles should be played and executed by the organizations as well as how other departments in the organization are organized and linked to support the M&E functions (UNAIDS, 2008).

Human Capacity

For an organization to effectively operate its M&E unit there should be enough staff hired in the M&E unit with the M&E technical knowledge and experience. The component stresses the need for an organization putting in place the required human resource with the ability to run the M&E function. Besides, the organization should work on empowering the staff members and improving M&E capacity of these people by continuously conducting M&E training workshops and other capacity building activities to keep them updated with the current and emerging trends in the field (UNAIDS, 2008).

Partnerships

This is one of the key conditions required for successful M&E systems. M&E systems partnerships are found necessary for complementing the organizations effort and also serve as a source of verification to confirm whether the M&E functions are geared towards the intended objectives. The records and documents sources of evidence generated from organization's auditing processes. The technical staff and stakeholders used the information product to compare actual outputs against targeted outputs and make informed decisions for relevant changes if any (UNAIDS, 2008).

M&E Work Plan

This component closely resembles the M&E frameworks in many ways. The content of the framework entails inputs, outputs, outcomes and objectives of the programme, the work plan emphasizes use of allocated resources available for operationalising M&E functions in order to achieve the desired goals of M&E. The resources includes,

personnel, materials, time, and money used to accomplish the set M&E functions (UNAIDS, 2008).

Costed Work Plan

In order to implement an M&E plan, the cost of carrying out the planned activities by preparing a budget that describes the items and prioritized M&E activities for the year with implementers, costs for each activity, sources of funding and timeline for outputs delivery. This document makes it easier and convenient for organization to mobilize financial and human resources. It also allows for the stakeholders to monitor and assess the progress towards implementation of intervention. This is a special plan which should be developed by consulting all stakeholders working together in a harmonized way. The M&E planning cycle should be well matched with the overall budgeting cycle so that funding is timely made available for effective implementation of the plan.

Communication, Advocacy and Culture for M&E

This component is to do with policies and strategies in the organization that are required to support and promote M&E functions. It is difficult to integrate the M&E culture in the absence of continuous advocacy initiatives within the organization. It is also crucial that communication and strategies are well supported by the organizations top management without frustrating the M&E effort being made. Preparing an organizational M&E policy and making it accessible to all stakeholders, as well as the consistent use of M&E outputs on communication avenues are two ways of improving this important component.

Routine Programme Monitoring

There are two major aspects of M&E namely: monitoring and evaluation. Routine programme monitoring component stresses the importance of continuous tracking of the daily activities of an intervention. Monitoring is a continuous process involving accurate data collection during project implementation. The data collected should be accurately reported on a continuous basis. The analysis of the data is used by the management to show whether the programme's activities are pointing towards meeting the desired outcome (UNAIDS, 2008).

Surveys and Surveillance

This component demonstrates the frequency of relevant surveys which are carried out by an organization at all levels during M&E implementation process. The surveys and surveillance should be carried out more often and used frequently to assess progress of inter-related projects of a given organization (UNAIDS, 2008).

National and Sub-national databases

Data collection and use in programme management world is fast becoming a reliable source of information. Most organizations and government projects are presently looking for data that is accurate and adding value to their purposes. The high demand for systems have data accessible is so real that organizations are left with no choices other than giving in to address the M&E demand issues. M&E systems should be developing strategies of correctly submitting accurate and valid data to databases (UNAIDS, 2008).

Supportive Supervision and Data Auditing

According to UNAIDS (2008) a well-organized system should have a means for conducting data auditing and supervision. It means that organizations are expected to be regularly supervising activities for the supervisor to offer suggestions on the most viable ways of improvement of the programme. A standard data auditing process requires that the data collected is thoroughly subjected to thorough scrutiny and verification. This component is critical in ensuring that supervision process is handled efficiently. It is also important to note that data auditing is crucial because decisions made about programme's performance are based on the data collected.

Evaluation and Research

Research is looking for information to fill a knowledge gap which is a very important aspect of M&E which goes hand in hand with evaluation to discover the facts and evidence for decision making. Evaluation of programmes is rigorously done at specific times. It is a common practice that evaluations are carried out in the middle of the intervention or at the end of the programme. Evaluation is used to establish whether or otherwise the programme has met the desired results. It provides timely information feedback for organizational learning and sharing of successes with the key stakeholders (UNAIDS, 2008).

Data Dissemination and Use

The information which is collected during the implementation time of a programme should be used in planning the future activities by either continuing with the current implementation strategy or altering it altogether. The results of monitoring and evaluation information should be packed in a user-friendly manner and shared out among key stakeholders for accountability purposes. For organizations to effectively implement this component it is advisable that they put in place an information dissemination plan to guide the dissemination process (UNAIDS, 2008).

In Nigeria, National Response Management Information System (NNRIMS), generated a framework for monitoring and evaluating the countries response to HIV in the year 2004.The system had many challenges which were hindering it from reaching its optimum level. The challenges included a poorly coordinated vertical reporting system, unhealthy competition among sectors, and the rapid emergence of the improperly linked M&E sub- systems. An assessment of existing M&E system was conducted with main objective of verifying the system's capacity to provide required and demanded data for monitoring activities and identifying the programming gaps. The assessment adapted an organizing framework developed by UNAIDS, to point out the strengths and weaknesses of NNRIMS. The approach used was participatory, led and owned by the stakeholders for consensus building and adoption of a vibrant national HIV M&E system (Ogungbemi et al, 2012)

The assessment use both qualitative and participatory approaches to achieve consensus building by discussion and reflection. The main activity of the assessment process was using the 12 component tool by stakeholders to draw a comprehensive strategic plan. The assessment was conducted in three major levels: desk review, key stakeholders interviews as well as the stakeholders' M&E assessment workshops. At the end of the assessment, NACA composed a technical team to carefully analyze the assessment results and use it to develop a detailed costed national M&E work plan by the end of 2009 (Ogungbemi et al, 2012).

In the Republic of Moldova the National HIV M&E system has been immature since it was put in place in 2004. The 2008 assessment identified problems and addressed them in a holistic manner where a participatory process was used, applying a

standardized tool. The methods of assessment used were, desk reviews and broad discussions with recommendations made after broad consultations. The participatory assessment methodology used included a stakeholder's workshop with 7 distinct groups of stakeholders. This assessment also borrowed heavily from the comprehensive tool based on the Organizational Framework for functional M&E system by UNAIDS. The key areas of weaknesses which needed attention for improvement revealed by the report were, human resources, partnerships, data collection and utilization and data quality assurance.

The recommendations made for the system improvement by the assessment experts were: overhaul standardization of all aspects of the system; putting in place clearly stated deliverables; and identifying implementing partners.

USAID/Kenya (2010) reviewed and documented the National M&E status and the National Health Management Information System (HMIS). The assessment identified the key areas for improvement. The assessment also revealed the fact that the health sector lacked a detailed M&E framework, although some M&E strategies for various programs were in place. The assessment group recommended the establishment of an initiative involving all the stakeholders to prepare and implement a sector-wide M&E framework to manage all the activities. The assessment team reviewed documents, visited sites and interviewed over 100 staff members. As a result they identified various strengths to be maintained and weaknesses to be corrected in the existing M&E and HMIS as well as the challenges faced by the two systems.

In 2013, the World Bank through its Independent Evaluation Group (IEG) assessed M&E systems of International Finance Corporation (IFC) as well as Multilateral Investment Guarantee Agency (MIGA). Various data collection methods were used including: policies desk reviews, internal data bases, strategic plans and interviews of staff members and management. The assessment revealed that IFC had advanced system to gather, analyze and apply advisory project information while on the other hand MIGA had progress in up scaling its development assessment system. Both IFC's and MIGA's M&E systems have helped very much in improving operations and results the organizations. The weaknesses revealed by the assessment team showed that IFC's services providers were not able to demonstrate results because not

enough time had passed for the intervention's effects to take shape. Gaps were also noted in terms of measuring development for investment project. The report recommended that as a result of self-evaluation being the main project focused, there were a lot of lessons drawn concerning evaluation of programs and strategies (IEG, 2013).

In 2003 Association for the Development of Education in Africa assessed the monitoring performance and examinations in sub- Saharan Africa. The World Bank prepared terms of reference to be undertaken during assessments on examinations in primary and secondary education. The report of the study was published by the World Bank in 1992. This assessment reviewed field activities and differed with the 1992 report in the sense that data was not specifically collected for it. A new assessment approach was introduced known as system assessment which was meant to determine if children were acquiring the useful knowledge, reasoning ability, skills and values that schools promised to deliver. (Teklu, 2008).

There was sufficiently tangible evidence pointing towards positive changes in examinations result attributing to the overall level of the learners' achievements. The conclusion from this assessment was that while assessment information could improve policy management quality, success was not guaranteed. Success of the programme relies to a great extent on the political will of the government to support the effort. But in most cases the people in the political power are not comfortable with the assessors evidence for fear of truth destabilizing their political base. As a result integration of information from the assessments into Educational Management Information System (EMIS) was the best solution to address the problem. (Verspoor,1989).

In 1998 the World Bank through Independent Evaluation Group (IEG) did an assessment of developing countries efforts in strengthening their M&E systems and capacities. International donors were under pressure to show results of large volumes budgets they were responsible, they were also working to convince the developing countries to empower their M&E staff members and upgrade their own M&E systems. The focus was on exactly what the M&E system would offer to the developing countries. The information and evaluation findings were to be used by the

governments to improve their own budget decision making. It was revealed that use of M&E information was critical for the management of the public poverty reduction expenditures.

The richest countries in the world insisted that the developing countries were to put in place strong cases to emphasize on possessing and utilizing M&E evidence on governance issues. The assessment looked at what successful M&E system looks like- what to do, how to do and the pitfalls to avoid. For the institutionalization of M&E to be successful it should have three components: M&E information usage; good quality M&E evidence and sustainability. (Mackay, 1998)

The three assessments were conducted with the focus on the following six components of M&E: Need for data base-to help provide unprocessed data which is the backbone of the system; utilization is key in the progressive M&E system- it would be difficult and unethical for donors to commit funds to an M&E system whose results are not used; provision of training on concepts, tools and approaches of M&E; limitations when a government relies a law to make decisions; the structured arrangements of an M&E system- there is need to ensure objectivity, credibility and rigor the entire M&E system process and cycle; setting M&E systems is a painful effort which requires a lot of persistence. It takes a dedicated time and resources to form or strengthen an M&E information systems; most countries with well performing monitoring and evaluation systems are lacking the linear arrangement- it is revealed that in the three assessments M&E systems were in the process of growing and becoming better. However, it was also noted that the rate of growth was very slow and conducted in a piecemeal manner with a number of false starts; and finally regularly assessing an M&E system to finding out what is working, what is not working and why. The information is vital in seeking for the way forward when implementing changes recommended (Mackay, 2007).

The strengths of Australia M&E system were: Budget analysis majorly used the assessment findings; the sector departments and agencies highly utilized the results; assessment revealed collaborative endeavor between finance department and other government sectors. The weaknesses of the system was as follows: uneven quality of assessments; insufficient evaluation training; insufficient attention to information of

regular performance; and departments overburdened by administrative issues. The assessment of the Colombia M&E system was focusing on accountability purpose- political and social control where the president was strongly emphasizing the use of evidence by the political class control and direct the executive arm of government; and the use of assessments to support government decision making. By 2007 Colombia had only three evaluation findings completed, therefore there were no opportunities to utilize assessment results to back government decision making in the national budget planning (Mackay, 2007).

Strengths of Colombian system are as follows: High level use of the system by the president office; ministers used the information to set performance targets; the assessments were done by the non-members of staff in a transparent and credible manner; the assessment was conducted using inclusive approach by involving both the planning and the sector ministries; M&E information was openly reported and forwarded to the congress for further scrutiny discussions. The challenges of the Colombia system were reported as follows: there was poor demand and utility of the M&E information by the two key departments planning and finance as key stakeholders; reliability of the monitoring data was questionable; and there was excessive reliance on donor funding for the assessment.

The assessment team compared Colombia's and Chile's M&E systems are revealed that the evidence base for Colombia assessment was not as robust as the Chile some lessons could be drawn from it. Chile's system is managed by a board of directors which merged M&E and budget work while M&E in Colombia system had been viewed as a stand-alone activity in the department of planning (Mackay, 2007).

The experience of setting up M&E systems in African countries is important to poor countries when preparing poverty reduction strategies and lessons learnt are relevant in building M&E capacities building, particularly where there is potential donor assistance. These lessons are also shared with the developing countries which are rarely committed to improving their M&E systems. The need to prioritize monitoring and evaluation has become a repeated slogan widely positively embraced by both donors and governments.

In Tanzania there was a health technical working group composed of donors and government, which analyzed sector performance, reviewed M&E systems and also identified M&E capacity building merits. The programmatic leading to poor African countries revealed another way to solve harmonization problems as it reduced the project-specific scope and the donor balkanized scope of the M&E system (Teklu, 2008).

In Uganda the World Bank provided a practical and realistic budget to the state operatives. The government of Uganda understood the need of having comprehensive and reliable performance data which is always available for scrutiny and used in national planning and budgeting. The country had a number of M&E systems and became the first country in Africa to use Public Expenditure Tracking Surveys (PETs) (Hauge, 2001)

The assessments by Mackay (2007) exposed a large number of unsupervised and poorly coordinated M&E systems at sub-sector levels. Besides, a data collection burden was revealed in an assessment that was done and based on the three sectors (health, education and water & sanitation) at the facility levels. The three sectors carried out data collection on about 1,500 indicators for nearly 500,000 data entries per year for each of the administrative 120 units in the country. The missing components were the measures of client satisfaction and outcome measures. The quality of data was very poor and unreliable. Site inspections in health sector had cost 1,400 staff annually which was time consuming of medical personnel. As a result, sector ministries and agencies used in most cases inspection visits and not self-administered performance indicators.

The challenges that African states are facing are not only developing new M&E systems but also rationalizing and improving the existing M&E systems. Firstly, there are problems with data quality (either too much data or not enough information) and unharmonized donor requirements. Secondly, there are weak government demand for M&E information. Although no perfect M&E system is expected in African countries today, a number of key elements of M&E system can feasibly be undertaken.

According to the Mackey (2004) assessment, some of the Tools, Methods and Approaches used were: Financial Management Information Systems which supported best tracking methods of government spending; Public Expenditure Tracking Surveys used to detect and tame corruption effects; Service Delivery Surveys of clients' satisfaction and perception of the public services; Rapid Appraisals for government's projects and programs; National and sector statistical collections was meant to deal with national MDGs related issues; and the analysis of sector ministries' administrative data.

In Kenya the Economic Recovery Strategy (ERS) acknowledged that for a long period of time, M&E in Kenya has been done in an *ad hoc* manner, without a coordinated system and mostly it was due to donor demands. There was therefore the need to improve economic governance through an integrated system for M&E that would provide a sound means for evaluating the efficiency of programmes. The system was to provide the much needed economic policy implementation feedback and form the foundation for a clear process which both the government and the donor community could undertake. Key indicators to be used in measuring efficiency were therefore identified (GoK, 2002).

Mackay (2007) points out that a number of governments institutions third world countries are putting a lot of effort in improving their performance. According to World Bank, the growing trend of institutions to measure performance of services and policies is also influenced by member countries of Organization for Economic Co-operation and Development, most of which place a high priority on four categories, namely: policy development; budgeting; performance and accountability.

Njoka (2015) conducted the assessment of M&E system of Family Health Options Kenya. The overall objective was to reveal the status of the FHOK M&E system and show how it worked towards the improvements of the programme. The specific objectives were: determining the extent to which the established M&E standards were met; reveal strengths and challenges of the system; and determining how the information products of the system are being used to improve the programme. The overall performance of FHOK M&E system was 62 percent which was an aggregated score from all the 8 components recommende by FHI 360 (2013). The key gaps that

were identified included: poor documentation of M&E products and inadequate evaluation and research capacity.

FHOK M&E system contributed towards the programme improvement in a number of ways: vital in tracking progress against targets; accountability to donors and stakeholders, studying and making better programme implementation strategies; discovering new innovations; and making it possible for reaching the right target stakeholder and strengthening efficiency of FHOK programme. The key recommendations made included: need to update the M&E Framework into an M&E Plan, document all aspects of the system and realistic budget lines, the M&E team to conduct more regular data verification exercises (Njoka, 2015).

(GoK, 2013) argued that M&E is among the most significant innovations in modern public sector geared towards economic policy development and performance management. The citizens of Kenya expect to be informed how much has been achieved in realizing the development goals promised to them each year, particularly on public sector policies and programs they pay taxes for. Through M&E, economic performance management is assisted in making evidence based policies, and to respond swiftly to any policy implementation difficulties and counter on both anticipated risks and economic uncertainties. This is geared towards enhancing the country respond swiftly to emerging challenges in order to accelerate economic development in Kenya and improve the overall welfare of the citizens.

2.5. Conceptual Framework

 The assessment applied approaches used by Independent Evaluation Group (2013) in the assessment of both IFC and MIGA M&E systems as well as approaches by Ogungbemi et al. (2012) in assessing Nigeria's HIV M&E system. The assessment operationalized the UNAIDS (2008) Organizing. Figure 2 below presents the conceptual framework.
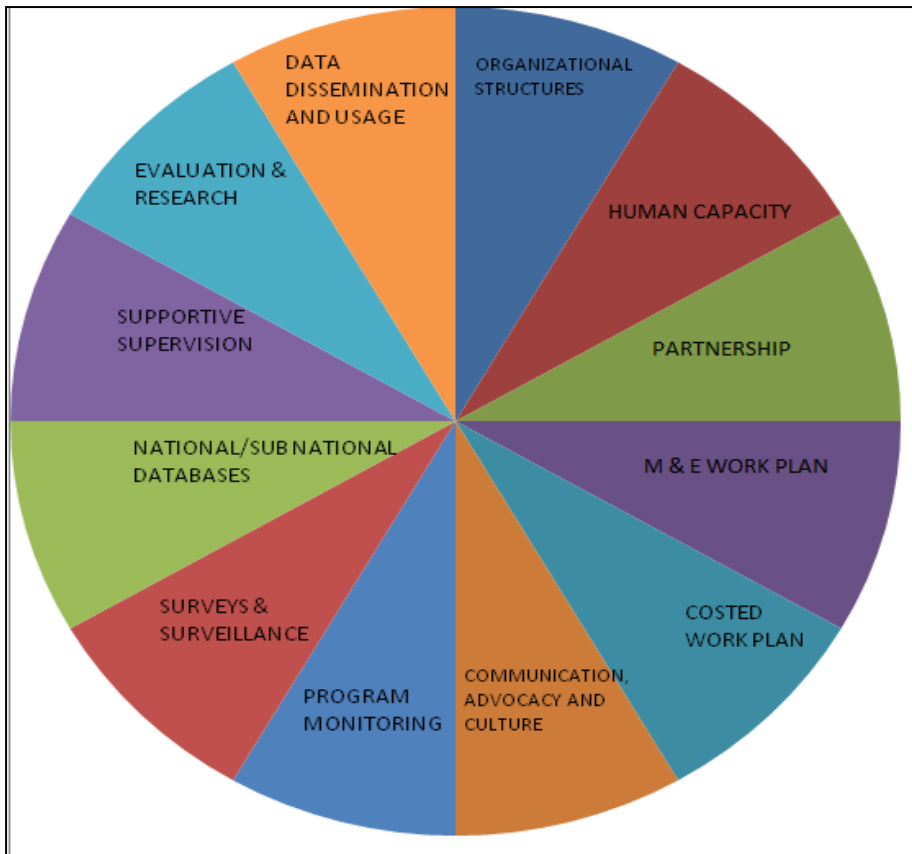
Figure 2.1: Conceptual Framework

Source: FHI 360 (2013)

2.6. Operational Framework

According to UNAIDS (2008) and World Bank (2009), components at each level are strongly linked to form a sub-set. As this framework was being developed it was noted that most of the key performance indicators are compatible with most M&E systems in general. Besides, all the categories at the national level are significantly and practically admissible at the program level. The assessment covered component by component with a brief explanation of what key indicators attempts to address.

Table 2.1: Operational Framework

COMPONENT	ELEMENTS
1. Organizational Structures within M&E Functions.	• Job descriptions for all M&E staff . • Organizational structure with M&E units or focal points in CEMASTEA organization. • Routine means for M&E planning. • Stakeholder linkage and consensus building.
2. Human Capacity for M&E.	• Development plan of the work force. • Standard curricula. • Training capacity. • Defined skill set for individuals and organization at service-delivery level.
3. M&E Partnerships	• Technical Working Group. • Capacity for coordination of stakeholders. • Mechanism for coordinating all stakeholders. • Routine communication channels.
4. M&E Plan.	• Departmental involvement in developing the plan in an inclusive manner. • M&E plan properly connected to Strategic Plan. • Plan according to required standards. • Plan explaining 12 components.
5. Costed Work Plan.	• The plan with activities and timeframe. • The plan updated yearly. • Stakeholders endorsing work plan. • Availability of resources to operationalise work plan.
6. M&E Advocacy, Communications and Culture.	• M&E referenced in policies and the Strategic Plan. • High level people endorsing M&E actions. • M&E materials targeting different audiences. • M&E advocacy plan available.
7. Routine Programme Monitoring	• Data collection strategy. • Data collection and reporting mechanisms. • Tools for data management. • Routine procedures for data transfer
8. Surveys and Surveillance.	• Specified schedule for data collection. • Routine supervision visits. • Periodic data quality audits. • Supervision reports.
9. National and Sub-national Databases.	• Database(s) for stakeholders needs. • Well-defined and managed databases.

COMPONENT	ELEMENTS
10. Supportive Supervision and Data Auditing.	• Guidelines for data collection at national and county levels. • Standard supervision and audit reports. • Periodic data quality audits. • Routine field visits.
11. Research and Evaluation .	• Complete records of ongoing evaluation studies. • Evidence of use of evaluation results. • Conference for dissemination of research and evaluation findings. • Guidance on evaluation methods and standards.
12. Data Dissemination/ Use.	• Analysis of data needs and data users. Information products for different audiences with a dissemination schedule. • Information products for different audiences with a dissemination schedule. • Accurate data use calendar. • Standard format for data tabulation and reporting. • Tangible evidence use of information.

SOURCE: Adapted from UNAIDS 2008.

UNAIDS (2008) asserts that M&E systems provide programmes with integral Management tools since they provide the programme management teams, funders, decision makers and other stakeholders with the opportunity to collect and analyze information on interventions and make decisions that can ultimately produce optimal (or better) results. The assessment plays a very important role to the CEMASTEA M&E system in terms of identifying its strengths and weaknesses. FHI 360 (2013); World Bank and UNAIDS (2009) and Global Fund et al. (2006) emphasize the periodical assessment of the organization's M&E system conditions so as to establish how the system is working (or not) and identify areas of improvement.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

CEMASTEA M&E system assessment methods are provided in this chapter. Specifically, it covers data sources, design used, targeted study sites and population, sampling procedures, data collection methods and tools, variables operationalization, analysis methods and ethical considerations.

3.2 Sources of Data

The assessment used data from both primary and secondary sources. Primary data was collected from M&E technical team, Programme Managers, field coordinators, county trainers and national trainers. Secondary data was collected from M&E reports, project reports, CEMASTEA Strategic Plan, M&E plan including the data use plan, internal reports and past M&E literature.

3.3 Research Design

The assessment applied a cross-sectional design which was the most convenient for this research and was descriptive in nature. There was use of mixed-methods approach to collect and analyze data. There was no comparison group to determine what would have happened in the absence of the CEMASTEA M&E system. The design was picked because it was the most appropriate and convenient for evidence finding as it generated to a large extent great quantity and quality of accurate information. The cross-sectional design enables a researcher to gather data at a particular moment and use it to define and explain the current conditions. The research design is used to find information to do with the current status of a phenomenon and to describe what exists with respect to conditions in a situation. In other words, descriptive research design primarily describes what is going on or what exists. A cross-sectional design research design was used since it allowed for description of CEMASTEA M&E system as it was and would help to establish strengths and challenges which were fundamental to the realization of research objectives (World Bank, 2009).

3.4 Target Population and Study Sites

The study was conducted at the CEMASTEA headquarters in Nairobi County because of the availability of data as well as presence of the key informants. The unit of analysis was individuals. The respondents who participated in the assessment were 20 members of the Research and Development department out of 60 staff members. This sample proportion translates to 33% of the population which is within the recommend rate of at least 20% for small populations. The best way for collecting the data was by the use of questionnaires among other means and purposive sampling used.

3.5 Sampling Procedures

FHI 360 (2013) recommends that the assessment sites should be sampled purposively on the basis of high volume data and priority. Purposive sampling was used to select both CEMASTEA headquarters and Research and Development department, based on the fact that R&D department is directly involved in the CEMASTEA's M&E exercises for more than ten years, and has been enjoying support from development partners. It has been supported by JICA and MOEST, received tools required for implementation and using the 2014 revised reporting tools. Performance indicators or elements to focus on during data collection were also sampled purposively depending on the specific objectives of the assessment. This sampling method is selected on the basis that the twenty respondents were directly mandated to handle M&E duties and conformed to the required stipulated criteria for key informants to answer research questions. This sampling method is normally deployed if the sample population is small and when the main objective is to choose cases that are informative to the research topic selected.

Purposive sampling was used to select respondents from the programme implementation team which included: 8 M&E technical team, 2 Programme Managers, 2 field coordinators and 4 county trainers and 4 national trainers (20 respondents in total) who are the members of Research and Development (R&D) department. The assessment focused on the CEMASTEA headquarter offices in Nairobi where a meeting was held for introduction and the respondents were briefed about the purpose of the assessment before the data collection exercise. Since the organization had a very busy schedule conducting conferences and trainings, the

interviews took 5 days as only 4 respondents could be reached per day. The Head of Research and Development coordinated the interviewing and document review processes. She ensured that the respondents were available for interviews at the right time and place and the required documents timely availed. The questionnaires were administered by the researcher for the 5 days of data collection period. However, there was no data collected from the field.

3.6 Data Collection Methods and Tools

3.6.1 Documents/Records Review

A documents/records review process employed to review the M&E framework, project indicator matrices, project reports, service statistics, data collection tools M&E reports, Strategic Plan, M&E plan including the data use plan among others. A document/ record review guide with guiding questions used to guide the review process.

3.6.2 Discussions with Key Informants

Discussions were held with key informants such as M&E Committee members and Research and Development manager. A discussion guide with guiding questions was used to guide the discussions. A questionnaire was also used to collect data from the informants. Information from the key informants was used to score each of the twelve components.

3.7 Operationalization of Variables

In the M&E System Assessment Tool provided by FHI 360 (2013), each of the 12 components was broken down into a number of performance elements. Each element was scored basing on information gathered from existing documents and key informants. Specifically, the scoring process entailed scoring each relevant standard on a scale of 1 to 5.

Qualitative data analysis was conducted using thematic analysis. Specifically, emerging themes were identified from qualitative data collected from discussions and existing documents. This information was used to support the each of the score (quantitative data) for each standard that was assessed.

After scoring each standard, a separate column was used to provide basis for each score. The information gathered from the key informants, discussion and documents was entered here to provide the rationale for each of the score.

3.8 Data Analysis

Content analysis was employed with qualitative analysis of data techniques applied in the assessment. Twenty respondents filled questionnaires which had a number of performance element indicators for each M&E component. Using a scale of 1 to 5, the mean scores of the performance elements under each component were calculated and marked as X_1, X_2,………………, X_{20} . For each component, Total score $= \sum X_n$. The maximum possible sum of the average scores for each component is N=5x20 = 100.

Scores for each of the 12 domains were entered into MS Excel spreadsheet for analysis. Once the domains were scored, a table and a chart were automatically generated by the tool to display the quantitative results of the analysis. Qualitative data analysis was conducted using thematic analysis. Specifically, emerging themes were identified from qualitative data collected from discussions, observations and existing documents. The information was used to support each of the score for each element that was assessed.

3.9 Ethical Considerations

Ethical consideration is critical in ensuring credibility of and confidence in the study results. For this reason, ethical protocols and principles highlighted by Belmont (1979) were used. Considerations were employed to ensure that respondents would be provided with: a chance of making choice to participate or decline participating in the study; explanations to understanding the purpose of the study, likely risks and assumptions associated with the study; a clear understanding of the fact that no individual impact of the study is possible; knowledge that they would be free to pull out from the study at their own will; the knowledge that they would be free to decline to answer any questions they are uncomfortable with; and the reassurance that their responces would be strictly confidential.

CHAPTER FOUR

RESULTS OF THE M&E SYSTEM ASSESSMENT

4.1 Introduction

This chapter provides a discussion and presentation of the results. It starts by providing the status of the system with the aid of Participatory Assessment Tool by FHI 360 (2013). The strengths and challenges of the M&E system of CEMASTEA are also integrated and discussed. The chapter ends with the presentations and discussions on how the products of the M&E system of CEMASTEA have been used to improve the INSET programme.

The respondents of the interviews and discussion were all employees of CEMASTEA including, 8 M&E technical team who are heads of departments, 2 Programme Managers, 2 field coordinators and 4 county trainers and 4 national trainers (20 respondents in total) who are the members of Research and Development department.

4.2 Status of CEMASTEA M&E System

The summary scores for the 12 components are shown in Table 4.1 below. Twenty respondents filled questionnaires which had a number of performance element indicators for each M&E component. Using a scale of 1 to 5,working out the component score: the mean scores of the performance elements under each component were calculated and marked as X_1, X_2 ,………………, X_{20} . For each component, Actual Score = $\sum X_n$, where n represents 1 to 20. The maximum possible sum of the average scores for each component is N=5x20 = 100. Overall, CEMASTEA M&E system scored 676 out of 1200 which is 56 percent. The overall maximum score was 1200. Scores vary from component to component with evaluation and research scoring the highest at 80 percent and national and sub-national data bases recording the lowest score at 35 percent.

Kori (2005) conducted an assessment of M&E system of Family Health Options Kenya (FHOK). It focused on assessing the M&E system of FHOK rather than other organizational level systems. The study assessed the M&E system of FHOK in line with the 8 domains that are recommended by FHI 360 (2013). Overall, FHOK M&E system scored 148 out of 240 which is 62 percent. The scores varied from component

to component with data analysis and use as well as evaluation scoring the highest score of 79 percent and documentation recording the lowest score at 43 percent.

CEMASTEA M&E system and FHOK M&E system both had evaluation as the best performed component while documentation and national/ sub-national data bases as the worst performed components. The FHOK M&E system's better performance 62% than CEMASTEA's M&E system 56% was attributed to the fact that FHOK had an M&E unit up and running with the M&E Manager who was supervising all the M&E work.

Table 4.1: Summary Assessment Scores

Element	Score		
	Actual Score ($\sum X_n$)	**Maximum Score (N)**	**Gap Between Actual Score & Maximum Score**
1. Organizational Structures within M&E Functions	45	100	55
2.Human Capacity	40	100	60
3. M&E Partners	50	100	50
4. M&E Plan	55	100	45
5.Costed Work Plan	60	100	40
6.M&E Advocacy, Communication and Culture	48	100	52
7.Routine Programme Monitoring	65	100	35
8. Surveys and Surveillance	69	100	31
9.National and Sub-national Data bases	35	100	65
10. Supervision and Data Auditing	69	100	31
11.Evaluation & Research	80	100	20
12.Data Dissemination and Usage.	60	100	40
TOTAL	**676**	**1200**	**524**

Source: (Adapted from UNAIDS, 2008)

The assessment score should be used as a basis for improvement with emphasis on specific components that need to be improved. The scoring tools as well as supporting facts that were gathered from the documents review and interview are presented in the Appendices 1 and 2. The results were also presented in a radar chart.

A radar chart or spider chart also called a star chart plots the values of each category of results along a separate axis. The scale starts in the center (lowest possible score) and ends towards the margin (highest possible score). The subtype for this analysis is radar with markers. The radar chart displays M&E system changes in components score relative to a center point. The data from the table 1 was further represented in a radar chart below followed by the discussions of the results.
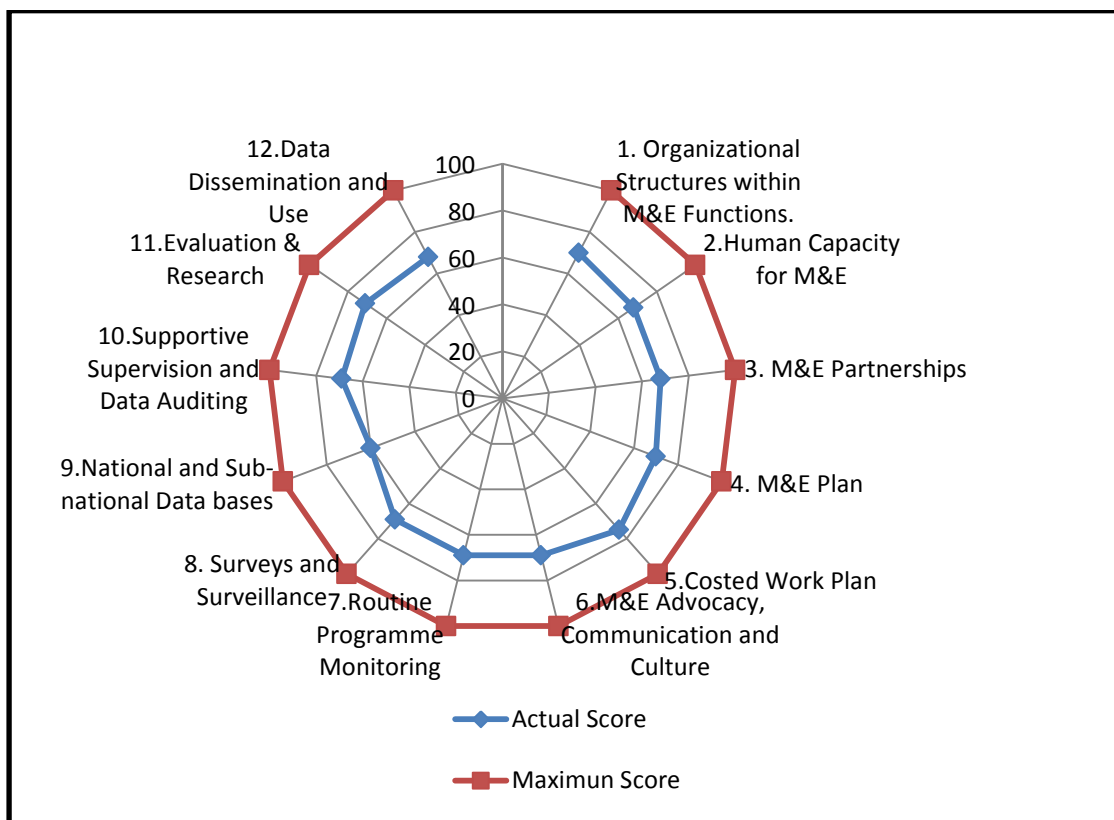

Figure 4.1: Summary Assessment Scores

The red line shows the maximum score for each of the 12 components. The blue line indicates the actual scores. The nearer the blue points to the centre of the radar chart the poorer the performance of the M&E component and vice versa. The distance between red and blue points are the gaps that CEMASTEA should put effort to fill in

for the betterment its system. All 12 components assessed are further analyzed and discussed below. The tools that were used to collect the data are in appendixes 1 and 2.

4.2.1 Assessment results summary of M&E components

In the following section the findings of the M&E system assessment are exhaustively discussed and presented. Results are prepared around the standards that guided the M&E system assessment exercise but also answers to some specific questions that arose. The discussions of the results are integrated with the findings. Also integrated with the findings and discussions are the CEMASTEA M&E system's strengths and challenges that were learnt during the assessment. They are presented as areas that supported the effective implementation of INSET programme and therefore areas that can be capitalized on as well as areas that need improvement. Every effort was made to give an overall picture of the findings of the CEMASTEA.

Nigeria national HIV M&E system: study, a core technical team was professionally composed to act on the assessment results and finally generate a costed national M&E work plan by end of year 2009.

Republic of Moldova the National HIV M&E system assessment experts concluded that it was important for all aspects of the system to be standardized for the improvement of the whole system. All aspects of the system should have clearly stated deliverables.

USAID/Kenya (2010) reviewed and documented the status of the National M&E and the National Health Management Information System (HMIS). The assessment team reviewed documents, visited sites and interviewed over 100 staff members. As a result they identified various strengths to be maintained and weaknesses to be corrected in the existing M&E and HMIS as well as the challenges faced by the two systems.

The strengths and challenges of CEMASTEA M&E system are integrated and discussed component by component as below:

4.2.2 Organizational Structures within M&E Functions

This component scored 45 percent which means the standards were met to the least extent. There was no descriptions of M&E staff jobs; inadequate skilled staff number; lack of defined career path. The institution lacked a comprehensive M&E framework with detailed M&E strategies.

The following elements were lacking: well-defined organizational structure; M&E focal points in CEMASTEA organization. Management and stakeholder coordination was noted which allowed for consultation and consensus building. The key implementing partners' such as the schools have very weak structures and not even having knowledge about their M&E mandate. There is multiplicity of unmatched and duplicative functions in the system. Such findings could be used to draw an effective action plan to improve the CEMASTEA's M&E system.

4.2.3 Human Capacity for M&E

This component scored 40 percent meaning most of the standards were not met. There is technical group called the CEMASTEA M&E Committee of eight members who are the departmental heads but not trained nor experienced on M&E. However, it was noted that no defined skill set for individuals at service-delivery level. Besides, a standard M&E work force development plan was not prepared as per the required standards, including career paths for M&E.

CEMASTEA conducts many local and regional training capacity but none is explicitly M&E related. The weakness of this component may be attributed to the general lack of adequate skills to handle the M&E systems. CEMASTEA should be working to build a team of highly motivated M&E professionals.

4.2.4 M&E Partnerships

This component of partnerships scored 50 percent meaning the standards were averagely met. There is a mechanism for coordinating the key stakeholders. However, there are non-effective routine communication channels. No sufficiently recorded evidence of any partnerships for M&E being initiated by CEMASTEA organization and as a result, limited success has been registered at the programme implementation

level. This has created a critical gap by the fact that most of the actual implementation and the sources of data are at the lower levels.

4.2.5 M&E Plan

This component scored 55 percent which means the standards were moderately met. Stakeholders' forum for participation in developing the M&E plan is not all inclusive. However, the plan is in one way or another linked to the CEMASTEA's Strategic Plan. It was also noted that the plan does not adhere to the required technical standards for M&E. The plan is poorly linked to other departments since its only focusing majorly on training. There is a chance now to generate a new smart plan to monitor and evaluate the entire CEMASTEA organization activities.

4.2.6 Costed Work Plan

This component scored 60 percent meaning it met the standards to a moderate extent. It contains scheduled activities, implementing people, period for doing activities specified and cost. Resources are available to implement and make flexible the M&E work plan. No evidence pointing that all relevant stakeholders were involved in endorsing the work plan. There is enough evidence that CEMASTEA's work plan is annually adjusted with the focus on the performance monitoring.

The FHOK M&E budget (Kshs. 14,039,761.22) accounted for 8 percent of the total programme budget (Kshs. 184,923,773.25) which was an excellent case as it was within the recommended 5 to 10 percent. There are two M&E Officers Percentage responsible for the projects.

In 2015 financial year, CEMASTEA's overall Research, Development and Knowledge Management department budget (Ksh.18,433,600) was 1.3 percent of the overall programme budget (Kshs. 1,411,506,600) less than the recommended 5 to 10 percent. Based on the analysis of information in the available budgets it was clear that there was improvement with regard to adherence to the budget guide provided on the utilisation of CEMASTEA funds. However, a number of Counties/Sub-Counties were found not to be adhering to the budget guidelines where more money than is allowed was budgeted for certain items.

4.2.7 M&E Advocacy, Communication and Culture

This component scored 48 percent meaning it moderately met the standards. No 'M&E champions' were identified. The champions should be appointed or selected from the top management body of the CEMASTEA staff who have influence and organization at heart and actively endorsing M&E actions with the aid of M&E advocacy plan. It was also learnt that M&E materials that target different stakeholders or various information users are not available or accessible for championing.

4.2.8 Routine Programme Monitoring

This component scored 65 percent which means the standards were met to a great extent. Somehow, there are well described data collection and information reporting mechanisms. There are CEMASTEA standardized tools and equipment for data management. There laid down routine procedures for data transfer from county levels to national levels. Noted missing was well-defined and managed databases. CEMASTEA INSET program lacks M&E tools for scheduling monitoring e.g. indicator data collection and monitoring plan. Although guidelines exist for data collection, lack of enforcement of adherence poses a threat to the quality of data and evidence produced.

4.2.9 Surveys and Surveillance

Surveys and Surveillance component scored 69 percent which means the standards were met to a great extent. There should be a special schedule for data collection properly linked to stakeholders' needs. Routine training centers and schools supervision visits are also crucial as well as data assessments from field work staff. However, no reports concerning supervision and data quality audit were available for scrutiny. CEMASTEA somehow has in place a way of conducting its surveys and surveillance but the scope is limited to only providing general approximations at the organization level.

4.2.10 National and Sub-national Data bases

This component scored the least 35 percent meaning only a few standards were met. There are various databases which are technically tailored   to respond to the decision-making and reporting needs. Although CEMASTEA has INSET databases,

dublication of work effort could be attributed to the fact that the data bases are not explicitly linked and has very low content concerning monitoring and evaluation.

4.2.11 Supportive Supervision and Data Auditing

This component scored 69 percent which means the standards were met to a great extent. There are routine supervision of INSET centres visits which includes the reporting on data assessments and feedback to local staff. However there was no supervision reports and data quality audit reports as donors always control most M&E-related processes. There were problems with data quality (either too much data or not enough information) and unharmonized donor requirements. There was no sufficient evidence from the data sources on changes in the key indicators which could confirm that the programme was achieving the desired changes.

4.2.12 Evaluation & Research

Evaluation and Research scored 80 percent which was the highest score meaning most of the standards were met to a large extent. There was a record of all research studies concerning both current and past studies. CEMASTEA has guidance on its evaluation and research standards. There are conference and forums used to pass information generated from research and evaluation results. However, there are no records showing clear evidence of use of evaluation and research findings generated by CEMASTEA M&E system. The output achievements are not well explained and not detailed in the INSET programme evaluation report. It is in record that recently some efforts have been made to coordinate the INSET evaluation studies, but not much ground has been covered on monitoring and evaluation.

4.2.13 Data Dissemination and Use

This component scored 60 percent meaning it met the standards to a moderate extent. Being the heart beat of M&E analysis, data needs as well as data users is crucial. It important that data use calendar is prepared and availed to guide the timetable for data collection and reporting. Most of the information products are not tailored to suitable audiences and dissemination schedule not in place which has caused minimum M&E information use. CEMASTEA should plan for a stakeholder information needs assessment in order to establish which specific information should go to a given stakeholders audience to avoid duplication and conflict in the management system.

4.3. Contributions of CEMASTEA M&E System to Programme Improvement

As noted earlier, products of CEMASTEA M&E system have been used to improve the programme. Thomas (2010) observes that, development work that yields most positive change on the lives of the people is identified and promoted by M&Esystems. A system is critical for running programmes effectively and efficiently as well as enhancing learning and accountability to stakeholders (FHI, 2012).

It was critical to look at how the products of CEMASTEA M&E system have helped in informing and improving its programme. Products of CEMASTEA M&E system (such as half year reports, annual reports, donor reports, periodic newsletters and service statistics) have been used to improve the programme in a number of ways as presented and discussed below:

4.3.1 Tracking progress against desired outcomes

The M&E system provides a feedback mechanism that informs INSET activities including content development not only for mathematics and science teachers but also stakeholders such as County Directors of Education (CDEs), TSC County Directors, Sub-County Directors of Education (SCDEs), Quality Assurance and Standards Officers (QASOs), Principals of Schools and their Deputies and Heads of Departments (HODs). Performance is discussed during programme meetings and project review meetings. During these forums, areas that are behind targets are identified and strategies for achieving the targets are discussed. Monitoring involves routine data gathering and synthesis on the progress of Plan implementation. The findings of such analysis are used as a basis for evidence based decision making, and also taking corrective action where deviations are observed.

4.3.2 Accountability to Donors and Stakeholders

Accountability to donors is critical since they provide much-sought resources for programme work. Porter (2012) recognizes the fact that donors have pushed organizations in Africa to institutionalize M&E systems for purposes of accountability and CEMASTEA is not an exception. As a result, M&E system produces vital information (both quantitative and qualitative) that feeds into donor reports. An observation was made that all the donor reports are prepared, reviewed and shared with donors on time.

AfrEA (2006) acknowledges the importance of having internal accountability where the organizations are accountable to donors and themselves and other key stakeholders such as MOEST and partner organizations like JICA. CEMASTEA prepares annual reports and periodic newsletters that are shared with all partners. The reports are important in demonstrating the work that the organization is doing and keeping the key stakeholders informed on the same.

4.3.3 Strengthening the programme's efficiency and effectiveness.

The system is intended for systematic collection and analysis of information on implementation of INSET activities at the County/Sub-County level. The information generated from M&E exercises are meant for the efficiency of INSET content development and use. The findings of monitoring and evaluation exercise also form a basis for INSET management both at national and county operations to determine: whether or not the resources committed to the programme are sufficient and well utilized and the ability of Counties/Sub-Counties to implement the SMASE INSET programme. Through M&E of County/Sub-County INSETs a feedback is obtained on the implementation of SMASE program activities (i.e., lesson study, ASEI-PDSI practice in the classroom and ICT integration in teaching and learning) beyond INSET.

Besides, the findings of M&E reveal not only the strengths but as well as the weaknesses of the INSET system at County/Sub-County level. Consequently, the strengths can be used to document the success stories about County/Sub-County INSETs while weaknesses could form a basis for identification of areas of improvement and research.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This assessment aimed at determining how well does the CEMASTEA system meet established standards; identifying strengths and challenges of CEMASTEA M&E system; and determining how the products of the system are used to improve the programme. The chapter presents a summary of recommendations for each of the 12 components so as to help identify specific areas for strengthening.

5.2 Summary of Findings

The assessment employed cross sectional research design which allowed for description of the current condition of the system and helping to establish strengths and gaps which was fundamental to the realization of research objectives. Data collection was through documents review, interviews and discussions. Eventually, data was quantitatively analyzed in order to produce the results.

Overall, CEMASTEA M&E system scored 676 out of 1200 which is 56 percent. The overall maximum score was 1200. Scores vary from component to component with evaluation and research scoring the highest at 80 percent and national and sub-national data bases recording the lowest score at 35 percent.

The key strengths of CEMASTEA M&E system include: inventory of research studies, guidance on research methods, conferences for information dissemination, standardized data collection tools used, presence of M&E databases to track progress, continuous data analysis and use of evaluation results to improve programme. Key gaps that were identified include: inadequate resources allocated for M&E work (M&E budget was 1.3 percent of overall 2015 programme budget), no M&E unit nor trained and skilled M&E staff, poor M&E framework and M&E plan, corrections are not made even after the data quality assessments are done, evaluations are largely donor-driven and no component of CEMASTEA M&E system has been discussed in a conference or published in a reviewed publication.

In terms of contribution of CEMASTEA M&E system to programme improvement, it was observed that CEMASTEA M&E system has been vital in tracking progress against goals, accounting to donors and key stakeholders, reviewing and improving the project implementation strategies, designing new discoveries, ensuring that the right target group is reached and strengthening efficiency of CEMASTEA programme.

5.3 Conclusion

It is evident that CEMASTEA M&E system is a good case worth sharing. At 56 percent, the M&E system is was rated 'moderate', with many areas for improvement. In terms of practice, a lot is taking place as far as M&E is concerned notably, in data quality systems, data analysis and use and evaluation. However, other components need strengthening with critical focus on documentation and data verification. The ongoing process of reviewing the M&E plan should directly address the documentation aspect. There is need for continuous management support, resource allocation and assessment for improvement, CEMASTEA's M&E system can be made an exemplary system for adoption by other institutions.

It is very important to note that this research project has been successful in achieving its three specific objectives as follows: determined the M&E system of CEMASTEA is 56 percent compliant to the internationally and locally established M&E System standards as outlined in the UNAIDS (2008) assessment tool having the 12 M&E system components; determined how the products of the CEMASTEA M&E system are used to improve the programme; and identified the difficulties facing the system and integrated more proposed solutions for improvement.

5.4 Recommendations

Based of the conclusions above, the following comments of recommendations were made for each of the components that was assessed. The recommendations can be used by CEMASTEA to improve its M&E system as appropriately applicable.

5.4.1 Structures of the organization within M&E Functions

As stated in CEMASTEA 2014 Strategic Plan Strategy 2: Enhancing monitoring, evaluation and reporting system the following changes are proposed: review

monitoring the M&E framework; review and develop monitoring, evaluation and reporting tools and develop mechanisms for ploughing back M&E findings. The existing M&E framework should be used as a platform to conduct action researches.

5.4.2 Human Capacity for M&E

CEMASTEA should set up an M&E unit for the purpose of supervising and coordinating all the M&E functions and hiring skilled and experienced staff headed by an M&E Manager who provides technical coordination of M&E work.

5.4.3 M&E Partnerships

CEMASTEA should build partnerships for M&E and maintain them. The organization should establish functional M&E linkages and partnership division to implement existing MOUs, and initiate new ones.

5.4.4 M&E Plan

The M&E team should prepare a comprehensive and standard M&E plan with the following elements: introduction, description of the programme, indicators, data sources, monitoring plan, evaluation plan and dissemination & information use.

5.4.5 Costed Work Plan

M&E budget lines should be specified in budgets so as to show clear M&E activities in the budgets. It was observed that some project budgets have blanket budget lines stated as 'Monitoring and Evaluation'. In 2015 financial year, the overall Research, Development and Knowledge Management department budget (Ksh.18,433,600) was 1.3 percent of the overall programme budget (Ksh. 1,411,506,600) which was a very poor case as it was not within the recommended 5 to 10 percent. Control measures should be put in place to ensure all financial regulations and guidelines are adhered to. Supporting documents should be attached as evidence.

5.4.6 M&E Advocacy, Communication and Culture

CEMASTEA should have within its staff, 'M&E champions' appointed from high-level management staff who are responsible for identifying and actively endorsing M&E actions. There should also be a comprehensive and detailed advocacy plan. The CEMASTEA M&E should be driven by the organizational culture rather than donors.

5.4.7 Routine Programme Monitoring

Before operationalising monitoring activities a detailed monitoring plan is required. CEMASTEA should prepare M&E tools for scheduling monitoring e.g Indicator Data Collection and Monitoring Plan, Indicator Reference Sheet, Gantt Chart, Programme Evaluation and Review Technique and Critical Path Method (CPM).

5.4.8 Surveys and Surveillance

A strong M&E research capacity and knowledge management should be established. The scope should not be limited to providing estimates at the organization level.

5.4.9 National and Sub-national Data bases

The various data bases should be properly linked to each other to avoid the duplication of work and poor resource mobilization and use.

5.4.10 Supervision and Data Auditing

Document review revealed no sufficient evidence from the data sources on changes in the key indicators which could confirm that the programme was achieving the desired changes. Therefore CEMASTEA should have the required guidelines and documents for data auditing available and accessible, as well as scheduling the exercises in its annual work plan and actualize them accordingly. Supportive supervision is significant because it ensures the M&E process is run efficiently and decisions based on the information generated from data collected.

5.4.12 Evaluation & Research

CEMASTEA should practice and adapt the system where evidence and not opinion is used in the policy making process to have well informed decisions about policies. It is a fact that most of the research and evaluations are generally flawed by unclear objectives, poor design and methodological weaknesses (Devies, 2003). The CEMASTEA management should state clearly the role of research and evaluation information vis-à-vis other sources of information because any dispute could lead to poor evidence, or to evidence which is perceived to be technically very sound but of very little use to policy makers or anybody else.

5.4.13 Data Dissemination and Use

CEMASTEA should establish and build capacity of the knowledge management team and consequently develop and publish M&E articles and journals. The format for reporting and data tabulation should be standardized and the information products should be targeting specified audiences and a comprehensive dissemination schedule generated. CEMASTEA has no records of stakeholder information needs assessment to determine the nature and validity of information required for decision making. The M&E information products should be made available and accessible to all the key stakeholders for feedback and correction.

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Appendix I: Questionnaire

INTRODUCTION

Dear Respondent,

My name is Patrick Olwa. I am a student at the University of Nairobi pursuing a Masters of Arts in Monitoring and Evaluation. As a requirement for the course the university requires that I write a thesis and submit it to the Population Studies and Research Institute. The topic of my thesis is "**Assessment of Monitoring and Evaluation System of the Centre for Science and Technology Education in Africa (CEMASTEA**)." I am humbly requesting you to take some of your time and kindly respond to all the questions asked herewith. Your filling in the questionnaire will highly be appreciated.

INSTRUCTIONS

This study is conducted purely for academic purposes and all information you provide will be treated as confidential. You are requested to respond to the questions with honesty so as the issue being discussed can be addressed adequately. The assessment results will shared with CEMASTEA for learning and improving its M&E system. Please answer all Questions.

SECTION A: BACKGROUND INFORMATION

Respondent (√) tick as appropriate.

1. What is your job title? _____

2. What is your work experience at the CEMASTEA?

Less than 5 years…………… [ ]   6-10 years …………………   [ ]

11-15 years ………….…..…   [ ]   16-20 years ……………….   [ ]

21-25 years ……….…..……   [ ]   26-30 years ……………….   [ ]

Over 30 years …….…..……   [ ]

3. Which department do you work in? Please tick.

   a .Finance & Accounting [ ]   b. Procurement [ ]

   c. Quality Assurance   [ ]   d. Workshop/ Training [ ]

   e. Human Resource   [ ]   f. Administration [ ]

   g. Research & Knowledge Management [ ]   h. Monitoring & Evaluation[ ]

   i. ICT   [ ]

j. Other specify _____

SECTION B :*Assessment of Components of M&E relating to people, partnerships and planning.*

To what extent has your organization adopted each of the following elements of M&E System? Tick **(√)** according to the scale:

(1 – not at all, 2 – least extent, 3- moderate extent,   4 – great extent,   5 – very large extent)

M&E COMPONENT	ELEMENT	1	2	3	4	5
1. Organizational Structures within M&E Functions.	• Job descriptions for all M&E staff .					
	• Organizational structure with M&E units or focal points in CEMASTEA organization.					
	• Routine means for M&E planning.					
	• Stakeholder linkage and consensus building					
2. Human Capacity for M&E.	• Development plan of the work force.					
	• Standard curricula.					
	• Defined skill set for individuals and organization at service-delivery level.					
	• Training capacity.					
3. M&E Partnerships	• Technical Working Group.					
	• Capacity for coordination of stakeholders.					

	• Mechanism for coordinating all stakeholders.					
	• Routine communication channels.					
4. M&E Plan.	• Departmental involvement in developing the plan in an inclusive manner.					
	• M&E plan properly connected to Strategic Plan.					
	• Plan according to required standards.					
	• Plan explaining 12 components.					
5. Cost Work Plan.	• The plan with activities and timeframe.					
	• The plan updated yearly.					
	• Stakeholders endorsing work plan.					
	• Availability of resources to operationalise work plan.					
6. M&E Advocacy, Communications and Culture.	• M&E referenced in policies and the Strategic Plan.					
	• High level people endorsing M&E actions.					
	• M&E materials targeting different audiences.					
	• M&E advocacy plan available.					

SECTION C: *Assessment of M&E Components relating to collecting, capturing and verifying data.*

To what extent has your organization adopted each of the following elements of M&E System? Tick **(√)** according to the scale:

(1 – not at all, 2 – least extent, 3- moderate extent,   4 – great extent,   5 – very large extent)

M&E COMPONENT	ELEMENT	1	2	3	4	5
7. Routine Programme Monitoring	• Data collection strategy.					
	• Data collection and reporting mechanisms.					
	• Tools for data management.					
	• Routine procedures for data transfer					
8. Surveys and Surveillance.	• Specified schedule for data collection.					
	• Routine supervision visits.					
	• Periodic data quality audits.					
	• Supervision reports.					
9. National and Sub-national Databases.	• Database(s) for stakeholders needs.					
	• Well-defined and managed databases.					
10. Supportive Supervision and Data Auditing.	• Guidelines for data collection at national and county levels.					
	• Standard supervision and audit reports.					
	• Periodic data quality audits.					
	• Routine field visits.					

11. Evaluation and Research.	• Complete records of ongoing evaluation studies.					
	• Evidence of use of evaluation results.					
	• Conference for dissemination of research and evaluation findings.					
	• Guidance on evaluation methods and standards.					

SECTION D: *Assessment of Component relating to data use in decision making (Using information to improve results).*

To what extent has your organization adopted each of the following elements of M&E System? Tick **(√)** according to the scale:

(1 – not at all, 2 – least extent, 3- moderate extent,   4 – great extent,   5 – very large extent)

M&E COMPONENT	ELEMENT	1	2	3	4	5
12. Data Dissemination and Use.	• Analysis of data needs and data users. Information products for different audiences with a dissemination schedule.					
	• Information products for different audiences with a dissemination schedule.					
	• . Accurate data use calendar.					
	• Standard format for data tabulation and reporting.					
	• Tangible evidence use of information.					

SECTION E. Any challenges or what needs improvement on CEMATEA M&E system operation.

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Appendix 2: Discussion Guide

Questions.

1. What are the key components of CEMASTEA's M&E system?

2. What are the performance standards for each of the components?

3. What are the M&E documents and records prepared and used by CEMASTEA?

4. To what extent has your organization adopted each of the following elements of M&E System? Tick (√) according to the scale:

(1 – not at all, 2 – least extent, 3- moderate extent,   4 – great extent,   5 – very large extent)

M&E Component	Performance Standards of CEMASTEA.	Documents Reviewed	Scores	Remarks
1. Structures for M&E Functions.				
2.Human Capacity for M&E.				
3 Partnerships				
4.M&E Plan.				
5.Costed Work Plan.				
6. Advocacy, Communications and Culture.				
7. Programme Monitoring				
8.Surveys.				
9. Databases.				
10. Supervision and Data Auditing.				
11. Evaluation and Research.				
12.Data Dissemination and Use.				