Ministry of Education,
Science and Technology

SECONDARY EDUCATION

PERFORMANCE MANAGEMENT ROADMAP

October 2019

Strategic content | Needs analysis & recommendations | Road map overview | Road map components | Implementation arrangements | Sustainability & ownership | Budget | Key opportunities

EUROPEAN UNION

Supported by the European Union
Improving Secondary Education in Malawi (ISEM)

ACKNOWLEDGEMENTS

With special thanks to the following contributors:

- Whyson Amigo, Head Teacher, Mitundu Secondary School
- Lois Chadyaudzu, Head Teacher, Nanjati CDSS
- Jesse Chisamile, Head Teacher, Njewa CDSS
- Pascal Chitundu, Head Teacher, Chinsapo Secondary School
- Ethel Jiya, Head Teacher, Ngowe CDSS
- Besta Kabula, Head Teacher, Mkwichi CDSS
- Jenny Kadzuwa, Head Teacher, Kangoma Secondary School
- Charles Kaiton, Head Teacher, Dzedza Secondary School
- Eliza Kamanga, Head Teacher, SOS Secondary School
- Daud Kaponda, Head Teacher, Malingunde CDSS
- Ida Katangala, Head Teacher, Falls CDSS
- Christopher Khoropa, Head Teacher, Tsabango CDSS
- Gertrude Makonokaya, Head Teacher, Chipasula Secondary School
- Dickens Mbewa, Head Teacher, Mkomachi CDSS
- Herbert Mmala, Head Teacher, Nkhoma CDSS
- Denis Msukwa, Head Teacher, Minga CDSS
- Albert Mwale, Head Teacher, Kaundama CDSS
- Andrew Mwanza, Head Teacher, Mitundu CDSS
- Bridget Nungu, Head Teacher, Bwaila Secondary School
- Mercy Phiri, Head Teacher, Nalikule Secondary School
- Witman Phiri, Head Teacher, Likuni Boys Secondary School
- Judith Vilili, Head Teacher, Lilongwe Girls Secondary School
- James Namfuko, Deputy Director, Directorate of Education Planning, MOEST
- Nora Nyirongo, Secondary Education Methods Advisor, Central West Education Division
- Students and staff of Minga CDSS for allowing their photographs to be used in this roadmap

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the Ministry of Education, Science and Technology and do not necessarily reflect the views of the European Union.

FOREWORD

The Secondary Education Performance Management Roadmap provides a pathway for all education sector actors to work towards the goal of having one information system for all secondary education needs.

The need for reliable and accurate data to manage education is very important for the Government of Malawi. Our schools need to know how their students are learning in their classrooms, the resources held in their schools and the funds in their bank accounts. The Cluster Centres and Districts need to know how individual schools are performing in an absolute sense, as well as comparatively across the cluster and district. The Ministry of Education, Science and Technology needs to aggregate this data to understand the state of secondary education and to investigate where strengths and weaknesses exist and how to address gaps in the service delivery.

In the 21st century and with the advent of smart phone technology in the hands of the citizens of Malawi, it is now possible to equip our secondary schools with tools that will empower and enable stakeholders to better capture and use data for the betterment of teaching and learning. The Performance Management Roadmap provides a plan for the development of a digital school management tool, the supply of e-tablets and the training and operationalization of a school-based performance management system for all government secondary schools.

We expect that within three years, all the schools will have the capacity of reporting daily on their students, teachers, Heads of School and community member involvement in school life, whilst capturing students' learning outcomes, teacher continuous professional development and resource usage. This wealth of data will be owned by the schools, shared with other sector stakeholders and become the basis for continued development of secondary education in Malawi.

Justin A.K. Saidi

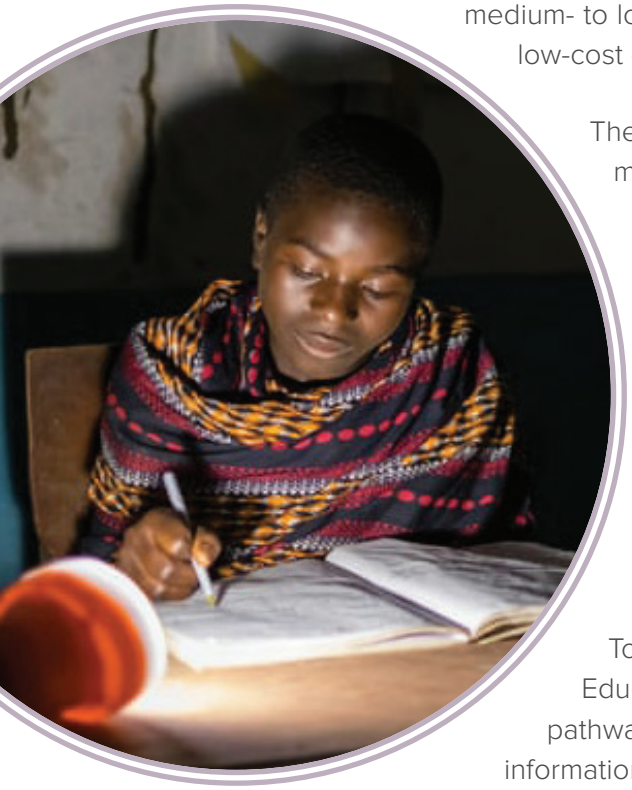
SECRETARY FOR EDUCATION, SCIENCE AND TECHNOLOGY

EXECUTIVE SUMMARY

The Government of Malawi intends to put in place the Secondary Education Sector Performance Management System (SEPMS), a school-based information capture and data management system that supports schools, clusters, districts, division and management of education services.

The main purpose of the system is to aid the Head Teacher in the leadership and management of his or her school. The system will support data-driven, decision-making at the facility level focusing on students' performance and at the 'close to school' cluster level. It will also support communication within and across schools, by providing a platform for horizontal communication about educational performance.

At the District level, it will provide student performance and input data by school and cluster level supporting immediate and medium-term interventions. At the National level it will promote efficient medium- to long-term planning and budgeting through access to reliable, timely, low-cost data and multi-year data sets.



The challenges to the current system of performance management are multiple. in the provision of quality data at all levels of the Malawian Education System. Data collected on an annual basis contains critical gaps, does not satisfy the users' needs and there is a lag of more than twelve months (on average) for the availability of data. Processes focussing on student performance and student outcomes at every level of the system are limited, often absent. There is little or no evidence of meetings structured weekly, monthly, termly or annually that uses data from the performance management system to discuss student performance. There exists little or no training on the current MOEST performance management system.

To respond to the critical needs of secondary education, the Secondary Education Sector Performance Management Roadmap provides a pathway for all education sector actors to work towards the goal of one information system for all secondary education needs. The Roadmap provides the results of the 2018 performance management needs analysis. The response to identified needs is presented in a three-component programme to be implemented by MOEST over a two-year period, with funding from the World Bank EQUALS facility.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS II
FOREWORD III
EXECUTIVE SUMMARY IV
TABLE OF CONTENTS V
LIST OF FIGURES, TABLES, & BOXES VII
ABBREVIATIONS & ACRONYMS VIII

1 STRATEGIC CONTEXT 1
- 1.1 SECTOR & INSTITUTIONAL CONTEXT 2
- 1.2 SECTOR M&E FRAMEWORK 3

2 NEEDS ANALYSIS & RECOMMENDATIONS 5
- 2.1 VISION OF A SECONDARY EDUCATION PERFORMANCE MANAGEMENT SYSTEM 6
- 2.2 NEEDS ASSESSMENT FINDINGS 7
  - 2.2.1 Data Quality & Quantity 7
  - 2.2.2 Processes supporting Student Performance 9
  - 2.2.3 Capacity Building 10
  - 2.2.4 Communication 10

3 ROADMAP OVERVIEW 11

4 ROADMAP COMPONENTS 15
- 4.1 Component 1 DATA FORMS & REPORTS 16
- 4.2 Component 2 SYSTEMS TECHNOLOGY & DATABASE INTEGRATION 18
- 4.3 Component 3 GOVERNANCE, MANAGEMENT & CAPACITY BUILDING 23
  - 4.3.1 Capacity Building 24
  - 4.3.2 Capacity Building Target Population 25

TABLE OF CONTENTS

5 IMPLEMENTATION ARRANGEMENTS 27

5.1 IMPLEMENTATION ARRANGEMENTS 28

5.2 IMPLEMENTATION SCHEDULE 30

6 SUSTAINABILITY & OWNERSHIP 31

7 BUDGET 33

8 KEY OPPORTUNITIES, RISK AND MITIGATION MEASURES 35

ANNEXES 37

ANNEX 1 DOCUMENTS CONSULTED 38

ANNEX 2 KEY ACTORS AND STAKEHOLDERS CONSULTED 39

ANNEX 3 NEEDS ASSESSMENT FINDINGS & RECOMMENDATIONS 40

LIST OF FIGURES, TABLES & BOXES

1 FIGURES

Figure 1. Critical problem: the system is not collecting and using data effectively to support learning outcomes 8
Figure 2. Secondary Education Performance Management Data System 13
Figure 3. MOEST New Data Ecosystem 18
Figure 4. Data Capture Storage & Reporting Module 19
Figure 5. Electronic Communication Module 21
Figure 6. Performance Management Processes & Data Use 23
Figure 7. Implementation Arrangements 29

2 TABLES

Table 1. Most critical needs-assessment findings and associated recommendations 14
Table 2. Forms & Reports Phased Development 17
Table 3. Core Applications of the Education Performance Management System (EPMS) 20
Table 4. Breakdown of the basic hardware, software, licenses and accessorises 22
Table 5. Indicative Implementation Schedule 30
Table 6. Secondary Education Performance Management Roadmap budget 34
Table 7. Key Opportunities, Risk and Mitigation Measures 36

3 BOXES

Box 1. Secondary Education Performance Management Roadmap Components 12
Box 2. Capacity Building Requirements 24

ABBREVIATIONS & ACRONYMS

CPD	Continuous Professional Development
DBE	Directorate of Basic Education
DEM	District Education Manager
DEMIS	District Education Management Information System
DEMISO	District EMIS Officer
DIAS	Directorate of Inspectorate & Advisory Services
DP	Development Partner
DSDE	Directorate of Secondary and Distance Education
DTED	Directorate of Teacher Education & Development
ECM	Error Checking Module
EDEA	Electronic Data Entry Application
EDM	Education Division Manager
EMIS	Education Management Information System
EQUALS	Education with Quality and Learning at Secondary Project
ESIPII	Education Sector Implementation Plan II
ESRMEF	Education Sector Research, Monitoring and Evaluation Framework
GIS	Geographical Information System
HMIS	Higher Education Management Information System
HRD	Human Resource Development
HRMS	Human Resource Management System
ICT	Information Communication Technology
KPI	Key Performance Indicator
M&E	Monitoring & Evaluation
MANEB	Malawi National Examinations Board
MOEST	Ministry of Education, Science & Technology
MWK	Malawi Kwacha
NESP	National Education Sector Plan
NGO	Non-Government Organisation
NLGFC	National Local Government Finance Committee
PTA	Parent Teacher Association
SEPMS	Secondary Education Sector Performance Management System
SEST	Secretary of Education, Science and Technology
SPMD	School Performance Management Database
TEMIS	Teacher Education Management Information System
TLM	Teaching and Learning Materials
TTS	Tablet Tracking System
TWG	Technical Working Group
USD	United States of America Dollars

1 STRATEGIC CONTEXT

1.1 SECTOR & INSTITUTIONAL CONTEXT

1.2 SECTOR M&E FRAMEWORK

STRATEGIC CONTEXT

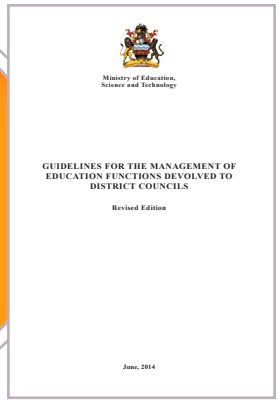
The Ministry of Education, Science & Technology (MOEST) is in the process of developing a Secondary Education Decentralisation Roadmap. A key element of this roadmap is the development of a Secondary Education Sector Performance Management system (SEPMS) and associated processes. The performance management system will allow sector stakeholders to determine the extent and quality of education service delivery and support better understanding and how to respond to need, based upon up-to-date, school level evidence, such as student learning outcomes, attendance and discipline. The Secondary Education Decentralisation Roadmap will incorporate the Secondary Education Performance Management Roadmap and focus on key areas needed to respond to education delivery, such as quality assurance, human resource management and continuous teacher professional development.

1.1 SECTOR & INSTITUTIONAL CONTEXT

The introduction of multi-party democracy in Malawi brought a new constitution and a system of decentralized governance, foreseen as the strongest foundation for attaining democracy and ensuring transparency and accountability. The decentralization approach includes a deliberate effort by government to restructure or reorganize authority so that there is a system of co-responsibility between institutions of governance at the central, district and local levels. The goal is to increase the overall quality and effectiveness of the system of governance, including the authority and capacities of sub-national levels. Decentralization is one of the constituents of good governance which encourages participation of citizens in socio-economic and political decisions while ensuring government's responsiveness, transparency and accountability.

In alignment to the Decentralization Policy (1998), MOEST partially devolved functions of the primary education sub sector as early as 2005, soon after the inception of the Free Primary Education Policy. Following these two major policy shifts, the Ministry devolved its structures by creating education districts and zones; and further functions of primary education with the goal of improving efficiency and effectiveness in the delivery of primary education services. In 2014, the Ministry devolved more functions to the councils, which were outlined in the **Guidelines for the Management Education Functions Devolved to the District Councils 2014,** and their operationalization in the Devolution plan of

The Guidelines for the Management of Education Functions Devolved to the District Councils was developed in 2014.


Ministry of Education, Science and Technology

GUIDELINES FOR THE MANAGEMENT OF EDUCATION FUNCTIONS DEVOLVED TO DISTRICT COUNCILS

Revised Edition

June, 2014

STRATEGIC CONTEXT

Since the inception of devolution of functions to the councils, the Ministry has devolved over 70 percent of its resource at primary education level.

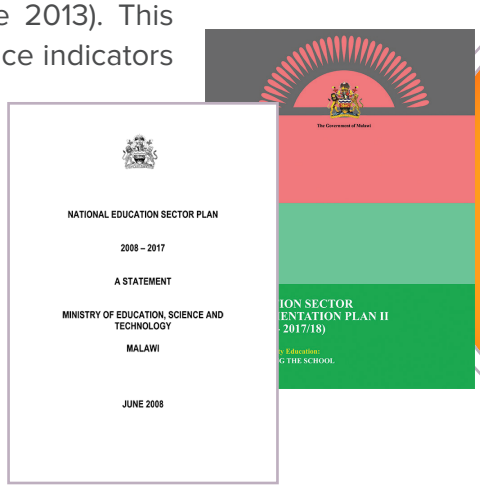
the Ministry. A major management function devolved to the councils in 2017 was processing and payment of salaries of primary school teachers.

The transferring of functions to District Councils, were also accompanied by additional resources. Currently, resources go through the National Local Government Finance Committee (NLGFC) to the councils. Since the inception of devolution of functions to the councils, the Ministry has devolved over 70 percent of its resource at primary education level. Some of the major functions that have been devolved include: Teaching and Learning Materials (TLMs); Complimentary Basic Education, Inspectorate and Advisory services, Home Grown School Feeding Programme, salaries, Primary School Improvement Grants and Construction of primary school infrastructure. Performance management of basic education remains a critical challenge for the improvement of learning outcomes.

At the secondary education level, a decentralization roadmap is under development to guide the decentralization processes, for which the Secondary Education Performance Management Roadmap is one part.

1.2 SECTOR M&E FRAMEWORK

The education sector Monitoring & Evaluation (M&E) Framework is the Education Sector Research, Monitoring and Evaluation Framework (ESRMEF) for the National Education Sector Plan (NESP) 2008-2017, extended to 2020 and Education Sector Implementation Plan II (ESIPII, June 2013). This contains the list of sector performance indicators in-line with the three key priority themes of the NESP, across all sub-sectors.



ESIPII is available for download at: http://www.education.gov.mw/phocadownload/ESIP-II%20LATEST%20DOC.pdf The NESP can be found at: http://10.150.35.18:6510/sdnp.org.mw/Education2010/FinalNesp.pdf

The governance structure for the ESRMEF is the Sector Working Group and delegated Technical Working Groups (TWG), representing 10 specialized areas, including basic and secondary

education respectively. These TWG have demonstrated mixed success since 2013. In particular, the operationalization of the NESP at school level and the ability to generate timely and accurate data to inform progress has proven challenging for both decentralized and central agencies responsible for education oversight.

2 NEEDS ANALYSIS & RECOMMENDATIONS

2.1 VISION OF A SECONDARY EDUCATION PERFORMANCE MANAGEMENT SYSTEM

2.2 NEEDS ASSESSMENT FINDINGS

2.2.1 Data Quality & Quantity

2.2.2 Processes supporting Student Performance

2.2.3 Capacity Building

2.2.4 Communication

NEEDS ANALYSIS & RECOMMENDATIONS

To achieve a comprehensive understanding of what structures and practises exist, MOEST performed a series of assessments: (i) a desk review[1], (ii) a mapping exercise of existing data systems and geographical coverage, (iii) an assessment of the current data needs against existing data, (iv) an evaluation of the data collection and management methodology, (v) an institutional review including roles and responsibilities of MOEST, Divisions and Districts staffs, (vi) a review of the current management software, and (vii) an evaluation of the systems and human resource capacity to meet the identified gaps.

Key actors and stakeholders across the system were consulted on the status of the system individually, and collectively by function and in small focus groups[2]. They were also consulted on what they required from a sector wide performance management system in order to efficiently and effectively manage their (i) schools, (ii) directorates, (iii) the decentralised sub-national management structures and (iv) other institutions within the education system.

2.1 VISION OF A SECONDARY EDUCATION PERFORMANCE MANAGEMENT SYSTEM

The Republic of Malawi is committed to having a robust sector wide performance management system that allows for the effective management of the education system performance, via the provision of the following:

i. **Data**: provision of accurate, timely, relevant data in support of strengthening education service delivery in real time
ii. **Processes**: that focus on student performance at every level of the system and that uses accurate data in the decision-making process
iii. **Capacity**: a capacitated workforce whereby actors at all levels of the system are proficient in using, operationalising and managing the system
iv. **Communication**: a multifaceted, communication platform that disseminates relevant data and information to respective stakeholder groups using appropriate technologies on a daily, weekly, monthly, termly and annual basis

1 See Annex 1, List of documents reviewed
2 See Annex 2, List of key actors and stakeholders consulted

NEEDS ANALYSIS & RECOMMENDATIONS

The need for a sector wide system that delivers the above-mentioned structure is called for in several government policy documents, guidelines and assessments completed over the past fifteen (15) years and by the various stakeholder groups that were consulted. This is stated as a foundational requirement by ESRMEF 2013: *"The implementation of the [NESP] M&E framework will depend on having a robust data generating system that produce accurate and real time data as and when required"*[3]. It also recommends that steps be taken to ensure there is an adequate ICT infrastructure that ensures communications between all the data generating systems such as the EMIS, DEMIS and TEMIS; to ensure sustainability, the systems should be adequately staffed with individuals who have to capacity to use, manage and operate the system; and the system should not merely be focused on data collection but also on analysing and utilizing data to inform decision-making at all levels of the system. The absence of the above factors has significantly impacted the success of the NESP and the ability to have timely knowledge of progress and for MOEST and partners to respond to unexpected results as they arise.

The implementation of the [NESP] M&E framework will depend on having a robust data generating system that produce accurate and real time data as and when required [3]. There are challenges in the provision of quality data at all levels of the Malawian Education System [4].

2.2 NEEDS ASSESSMENT FINDINGS

2.2.1 Data Quality & Quantity

There are challenges in the provision of quality data at all levels of the Malawian Education System[4]. Data is collected annually through the use of a census. The data collected contains critical gaps and does not satisfy the users' needs. There is a lag of more than twelve months (on average) for the processing and analysis of census data. Collected data is often erroneous due to mis-reporting and mis-inputting.

MOEST has an Education Management Information System (EMIS) that consists of structured sets of records (a database) of schools and a broad range of information concerning, *inter alia*, teachers, students and teaching, learning materials. Demand for the information produced by EMIS is wide and growing. The current implementing reform and modernization in secondary education decentralization has further increased this demand.

3 MOEST: Education Sector Research, Monitoring and Evaluation Framework (2013) p7, 2.2.2 & 2.2.6
4 See Annex 3, Needs Assessment General Findings and Recommendations

NEEDS ANALYSIS & RECOMMENDATIONS

Despite this demand, or maybe because of it, complaints are constantly made regarding the quality, frequency and accuracy of data collected and more importantly what is not collected. These complaints are for the most part driven by poor understanding of what is required and how data is collected. User complaints often relate to errors, inconsistencies, ambiguities or incomplete information which can be traced back to data collection, data processing, data structure and contents of the database.

A problematic issue impacting data quality is the fact that multiple actors within and outside the MOEST go directly to schools to collect the same or similar information at different times during the school year. According to stakeholders consulted, the reasons for this action include:

i. a lack of access to the EMIS data
ii. the data that is needed is not collected by the EMIS system
inadequate trust of the data collected and the data collection processes
iv. deficiencies in the current collection processes

The consequence, as reported by Heads of School, is a diminishing focus by schools on accuracy of reporting. This coupled with the lack of feedback from data collection exercises, is one of the major reasons for inconsistent and erroneous reporting of data of the sector.

The multiple values pertaining to similar sets of data have contributed to a lack of trust in MOEST EMIS. The numerous databases and systems also contribute to an unsustainable high cost of operations of the current performance system. This in turn inhibits the collection of quality data from the school level. Delays in publication of information, and inaccessibility of information to key stakeholders have rendered the EMIS system thus far unsuccessful in providing DSDE, DTED, DIAS, DBE and others timely reports for decision making.

Figure 1 demonstrates the dysfunctional approach to data collection driven by the need for timely data and/or the gaps in the data captured. A minimum of 6 agencies/departments directly request similar data from schools. Schools report that data flows one way – limited analysis and no feedback. Schools acknowledge that quality of data diminishes when asked to report same data multiple times with no feedback. Data collection thus becomes a compliance activity. As a result, data is neither accurate or timely.

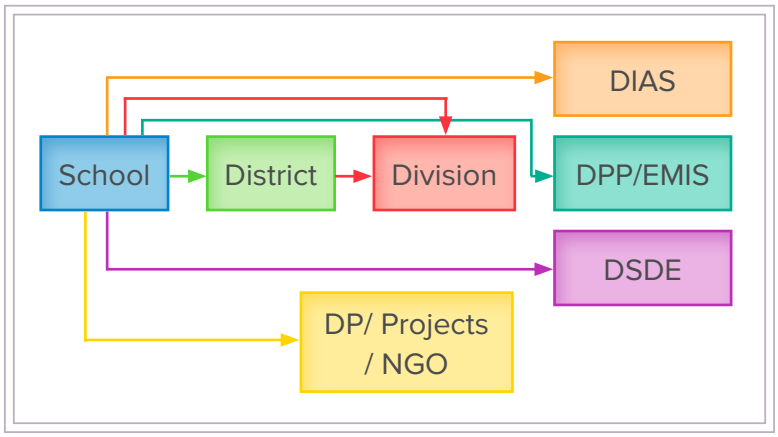


Figure 1. Critical problem: the system is not collecting and using data effectively to support learning outcomes

2.2.2 Processes supporting Student Performance

Processes that drive focus on student performance and positive student outcomes at every level of the system are limited, often absent. This is a result of a system that focuses on summative assessments and the minimal use of data in its decision-making processes.

There is limited evidence of structured conversations concerning student learning outcomes, based on student performance data between/among Head Teachers, Heads of Departments and Teachers. Similarly, there is an absence of structured meetings between Head Teachers and PTA, the Districts and Cluster Leaders and the Division and the Directorates at MOEST.

The team found little or no evidence of meetings structured weekly, monthly, termly or annually that used data from the performance management system to discuss student performance. This is not helped by the EMIS census not including student outcome data. This in turn limits the usefulness of the data for DIAS and other directorates, who experience data gaps. Student outcome data is a key element of any performance management system and this weakness must be addressed in order to have a fully functional performance management system.

The team found little or no evidence of meetings... that used data from the performance management system to discuss student performance. Student outcome data is a key element of any performance management system and this weakness must be addressed in order to have a fully functional performance management system.

Data-driven, continuous professional development (CPD) for Teachers and Heads of School is also critical in the pursuit of positive student outcomes, so too is community involvement via PTA, Board of Governors/School Management Committees[5] and the active participation of the national and subnational education management teams. Without processes that bring all actors back to the question of what can/is driving improved learning outcomes, it is very difficult for a system to improve. As such, **the processes sector is weakest in the performance management matrix and will require the most effort for its fundamental weaknesses to be adequately address.**

5 In practice, from school visits, SMC and/or PTA are more likely to exist than Board of Governors

2.2.3 Capacity Building

The need for enhanced human resource capacity at school, cluster, district, division and MOEST levels for data collection and use, and the operation and management of a performance management system was the second highest overall concern for all groups consulted in this needs assessment. **Respondents stated that they were provided little or no training on the current MOEST performance management system. Most were not empowered to receive or use what was collected and therefore had no encouragement to take action to better inform themselves.** For any system to function, it will require the necessary investments in the people that will use, operate and manage the proposed system. Without adequate investment in the people, the system will at best be highly in-efficient and at worst fail.

2.2.4 Communication

The current system has a unidirectional communication structure: information/data goes up from the school level but seldom feedback is provided. **Communication between and among Division, District and Schools are limited and those that occur are of an administrative nature and seldom focus on student outcomes.** The communication at MOEST to school and the system in general is transmitted via circular and the media. A few Directorates, Divisions and Districts are using unofficial new media such as WhatsApp groups to provide more effective communication among and between departments. At the governance level, horizontal communication between actors does not focus on key performance indicators, more often tackling crises management.

Communication is key to the success of any performance management system. A multi-faceted approach to communicating data and understandable information to all stakeholder groups is necessary. This should be accomplished by using appropriate technologies to deliver information and data daily, weekly, monthly, termly and annually as required. A large part of the communication issues affecting the performance management system is the lack of appropriate technologies that is being currently used and MOEST reliance on off-the-shelf solutions that don't meet the Malawian context.

Communication is key to the success of any performance management system. A multi-faceted approach to communicating data and understandable information to all stakeholder groups is necessary.

3 ROADMAP OVERVIEW

ROADMAP OVERVIEW

The SEPMS is a tablet-based, school management system that allows for the capture of population (student and teacher), resource and performance information at the school level.

The Government of Malawi intends to put in place the Secondary Education Sector Performance Management System (SEPMS), a school-based information capture and data management system that supports schools, clusters, districts, division and management of education services.

The main purpose of the system is to aid the Head Teacher in the leadership and management of his or her school. The system will support data-driven, decision-making at the facility level focusing on students' performance and at the 'close to school' cluster level. It will also support communication within and across schools, by providing a platform for horizontal communication about educational performance.

The main purpose of the system is to aid the Head Teacher in the leadership and management of his or her school.

At the District level, it will provide student performance and input data by school and cluster level supporting immediate and medium-term interventions. At the National level it will promote efficient medium- to long-term planning and budgeting through access to reliable, timely, low-cost data and multiyear data sets.

It is expected that a successful implementation of the secondary performance management system will form the genesis of a sector wide performance management system.

The SEPMS is a tablet-based, school management system that allows for the capture of population (student and teacher), resource and performance information at the school level. The system allows for improved daily management of the inputs, outputs and outcomes of education delivery, including individual student and teacher assessments and the management of school financial resources (see **Figure 2**. SEPMS Data System). Data primarily supports the oversight of school performance by the school's community, its academic staff and its management. It facilitates oversight of Schools by system actors at the Clusters, Districts, Divisions and National level. It collects existing census data as a baseline set at academic year start, from which performance indicators are generated. It is expected that a successful implementation of the secondary performance management system will form the genesis of a sector wide performance management system.

ROADMAP OVERVIEW

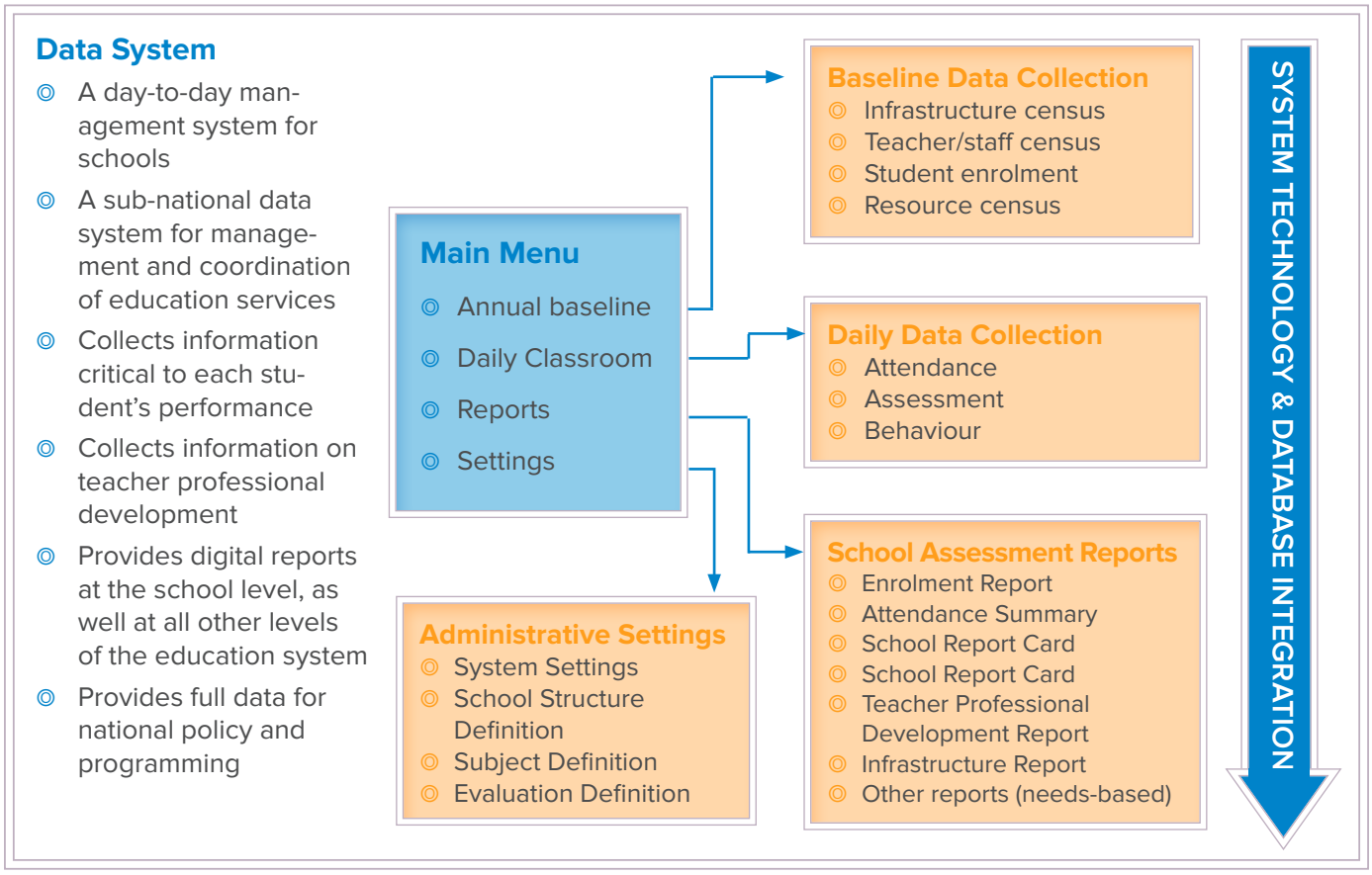


Figure 2. Secondary Education Performance Management Data System

This document provides the pathway to achieving the above described system, by laying out in key technical components and activities, and institutional requirements for its successful implementation.

BOX 1. SECONDARY EDUCATION PERFORMANCE MANAGEMENT ROADMAP OVERVIEW

- Component 1 Data Forms & Reports
- Component 2 Systems Technology & Database Integration
- Component 3 Capacity Building, Governance and Management
- Implementation Arrangements
- Sustainability & Ownership
- Budget
- Key Opportunities, Risk and Mitigation Measures

ROADMAP OVERVIEW

The Secondary Education Performance Management Roadmap responds to the performance management needs assessment findings. For each of the findings, a clear set of recommendations has been developed. These recommendations have been structured into a set of activities, to be implemented over a three-phases within a two-year period.

CRITICAL FINDINGS	RECOMMENDATION
◎ Uncoordinated, multiple systems of data collection storage processing and reporting	◎ Develop an agreed set of indicators meeting all actors needs and decentralise reporting to school leadership through the inclusion of an ICT management tool
◎ Inadequate processes for focus on student outcomes/ student performance at every level of the system.	◎ Develop a set of minimum processes that focus on student learning at and between school, community, cluster and district levels to target all factors that can improve student learning
◎ Need for greater collaboration between and among the directorates at MOEST and other levels of the system	◎ Work with process and communication strategies for strengthened leadership and collaboration for system strengthening
◎ A lack of access to data at all levels of the system	◎ Develop tools allowing every level of the system to access data concerning their respective level - school, cluster, district and sector and build capacity and process o be able to use it in support of learning outcomes
◎ High cost of operating and managing the current system	◎ Decentralise the process of collection, digitise the organisation of data and build whole system capacity to validate/ control quality

Table 1. Most critical needs-assessment findings and associated recommendations

The Performance Management System must support one national database for secondary education data and all stakeholders must use it for the design, implementation and monitoring of existing and future education programmes, for example EQUALS and ISEM. It must provide comprehensive strategic and operational information (both real time and periodic) regarding the national education system.

4 ROADMAP COMPONENTS

4.1 COMPONENT 1: DATA FORMS & REPORTS

4.2 COMPONENT 2: SYSTEMS TECHNOLOGY & DATABASE INTEGRATION

4.3 COMPONENT 3: GOVERNANCE, MANAGEMENT & CAPACITY BUILDING

4.3.1 Capacity Building

4.3.2 Capacity Building Target Population

ROADMAP COMPONENTS

4.1 COMPONENT 1: DATA FORMS & REPORTS

Development of the business case and design protocol for the forms and reports is the first step in the system development process. Once this is completed the data forms and reports will be developed in three phases. At the end of each phase the developed forms and report will be field tested before they are integrated in the system.

Phase one will focus on the development of school characteristics form, student data forms such as student enrolment form, student transfer form and student transcript, teacher data forms, attendance forms for both teachers and students and financial forms. Reports such as Enrolment Report, Attendance Summary Reports, School Report Card and Student Report Card will be developed. A baseline Infrastructure Report that captures all the current EMIS (census) data will also be developed during this phase.

Once a business case and design protocol are developed, data forms and reports will be developed in three phases. These three phases are described in more detail here and in Table 2.

Phase two will extend form development to student behaviour and factors impacting learning. During this phase school-based assessments, inspection, teacher continuous professional development report and weekly activity reports will also be developed.

Phase three forms and reports development will be determined by the progress of phases one and two and the needs of system actors. **Table 2** provides an overview indicative timeline for component one. Funding for the activities are provide by MOEST in collaboration with the World Bank, grant-financed, Education with Quality and Learning at Secondary Project (EQUALS).

The forms and reports, and the data they represent will be a key part of the new data ecosystem at MOEST[6]. The School Performance Management Database (SPMD) will be housed on tablets at schools that will capture student data such as personal data, assessment, behaviour and their academic progress. The System will also capture teacher data such as professional development activities, personal data

6 MOEST Data ecosystem will have data collected at school level via a tablet and transferred to MOEST/Cloud Server Central database from which all education stakeholders and actors will be able to access the data for use at each level of the system

ROADMAP COMPONENTS

	PHASE 1	PHASE 2	PHASE 3
DATES	January to June 2020	July 2020 to June 2021	July 2021 to June 2022
COVERAGE	Entire Country	Entire Country	Entire Country
CONTENT	i. School Characteristics ii. Student information iii. Student promotion iv. Teacher information v. Attendance Pupils vi. Attendance Teachers	i. Behaviour/factors impacting learning ii. Continuous Assessment iii. Teacher Continuous Professional Development iv. Weekly school activities: Cluster leaders visit schools School Committee meetings PTA meetings	To be determined by MOEST, for example: i. Quality Assurance ii. Examinations iii. School Planning & Budgeting iv. Programme extension to Primary Education
APPLICATION DEVELOPMENT	i. Application platform and communication mechanism ii. Input forms developed digitised iii. School reports developed, digitised and beta tested iv. Beta version of aggregated data output portal	i. Input forms ii. School reports (Tablets) iii. Interface for Cluster Leaders (tablets + portal) iv. Interface for Districts & DIAS (tablets + portal) v. Interface for Divisions and DIAS (portal) vi. National Dashboards vii. National Reports standards	To be determined

Table 2: Forms & Reports Phased Development

and teacher transfers which will be linked to the current HRMIS at the district level via MOEST central database (See **figure 3**). This tablet-based system will provide a single point of data collection (at school) that will greatly reduce the current data error rates and when errors are made the EMIS and M&E team will be able to pin point where the error is and apply the appropriate remedies at the point of data input, thereby improving reliability and validity of the data collected. The objective of this process is to provide timely, low cost, accurate, verifiable data within and across the system.

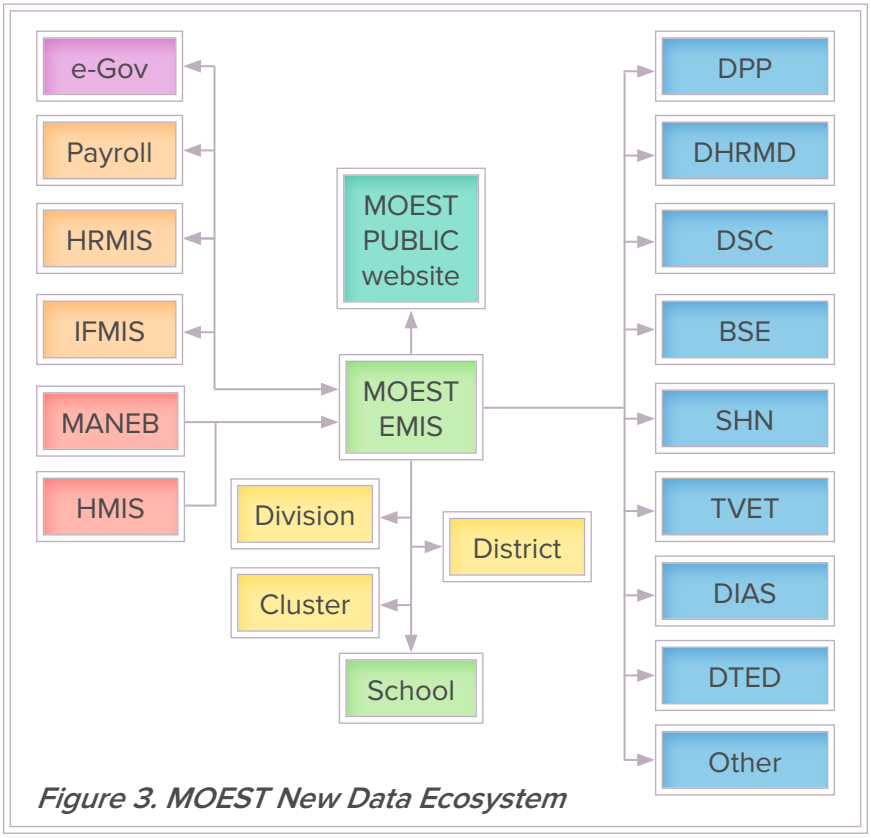


Figure 3. MOEST New Data Ecosystem

4.2 COMPONENT 2: SYSTEMS TECHNOLOGY & DATABASE INTEGRATION

The Performance Management System requires hardware (tablets, tablet servers, tablet accessories and central servers) communication software, a website and OS software. The system has an Electronic Data Entry Application (EDEA) which process data to a central electronic database. The Tablet Tracking System (TTS) is used to manage and monitor the progress of the data capture operations. The Error Checking Module or (ECM) checks for computational errors, alphanumeric errors and sequencing errors, among other things. Key to this structure is the capability of the system to integrate existing data sets, that are validated/reliable and process that are efficient in the delivery of data and information for the Performance Management System. **Figure 4** provides a graphic representation of the system.

ROADMAP COMPONENTS

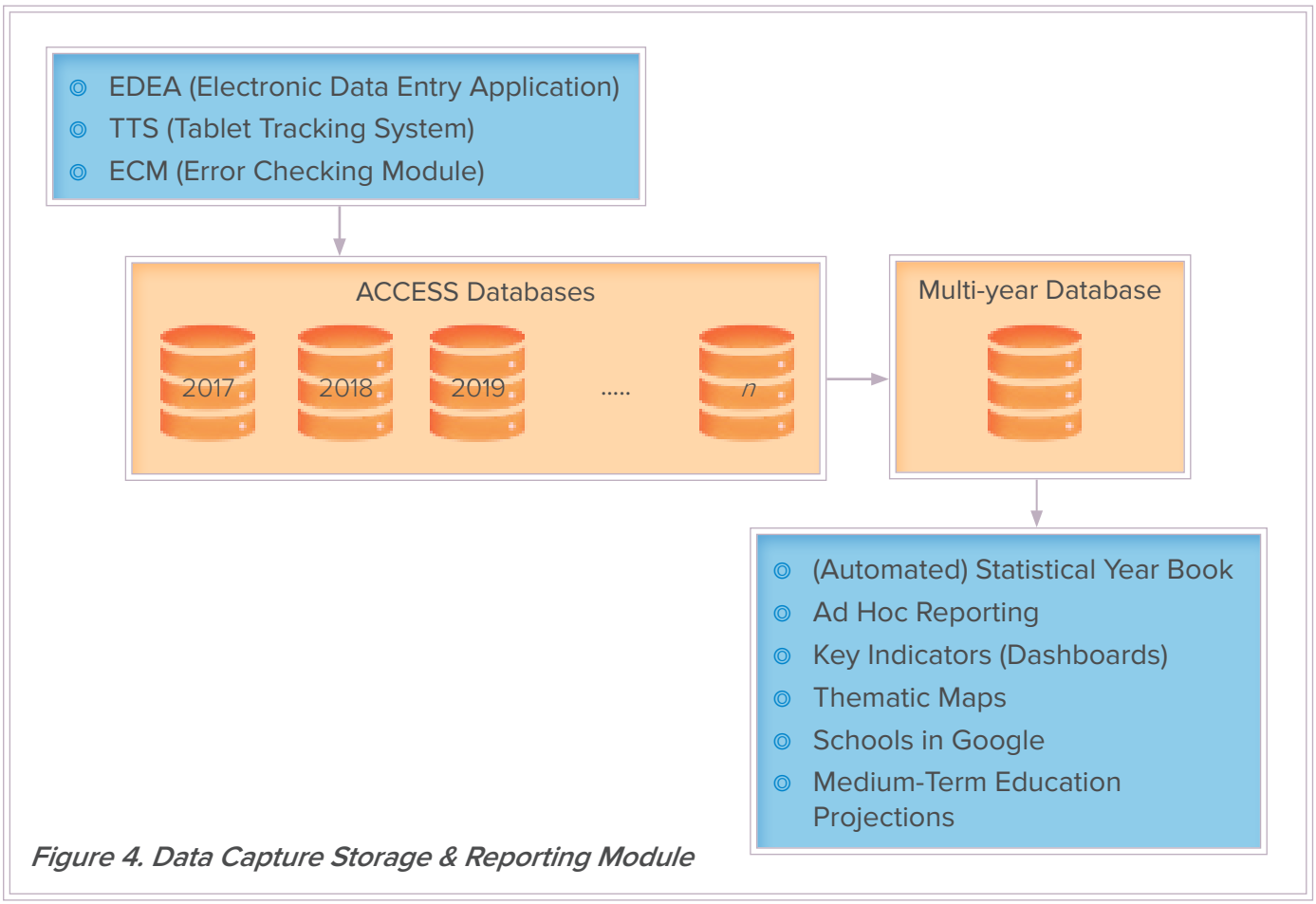
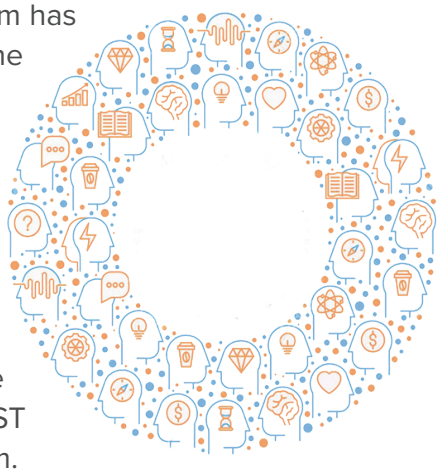


Figure 4. Data Capture Storage & Reporting Module

In addition, the Data Capture Storage and Reporting Module the system has a Communication Module that transmit the collected information in the most cost-effective way by packaging this information in the most efficient data structure to minimize the size and cost of the transmitted database. This can be accomplished via SMS, 2G, 3G, 4G, LTE, WIFI, NFC or Bluetooth, without the need for the user's input. The in-built system algorithm will determine the most cost effect method of data transmission.



The Head Teacher inputs data in his/her tablet which is stored on the tablet database. The system transmits the database to the cloud/MOEST data centre, which in-turn is made available to every level of the system.

ROADMAP COMPONENTS

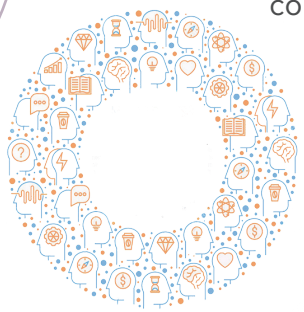
The core applications of the package are specified in **Table 3** below.

CORE APPLICATIONS	DESCRIPTION
Electronic Data Entry App (EDEA)	Data collection is completed daily by the Head of School using this app
Tablet Tracking System (TTS)	Monitors and controls the process of collecting daily data that is used in the day to day management of the school. Information from the EDEA app is fed into a central Microsoft Access database using this system Error Checking Module (ECM): identifies illogical errors and missing/invalid information from the daily data capture process and prompt the user to correct the inaccuracy before proceeding
Medium Term Projections for Education (MTPE)	Conducts up to twenty-year projections using two or more years' worth of data to support trend identification and long-term budgeting and planning
Business intelligence	Allows rapid ad-hoc, multi-year, multi-variable reporting; easy transfer to CVS, Excel or Word, and mapping of conditions of the educational system thereby permitting the user to be in control of their own information. This collected information is used to populate the National to the subnational level in real time, periodically or both

Table 3. Core Applications of the Education Performance Management System (EPMS)

Figure 5 on the next page provides a graphic representation of the Communication Module and its subsystems

The final section of component two is the GIS Mapping Module which provides GIS location for each educational facility and photographic evidence of the state of each facility. Photographic evidence such as classrooms, toilets, environment, condition of the roof, etc. will be collected. This information will be captured once per year and updated to the system by the Head of School. The information collected will be available on MOEST public facing website as per GoM regulations for the publication of data.



ROADMAP COMPONENTS

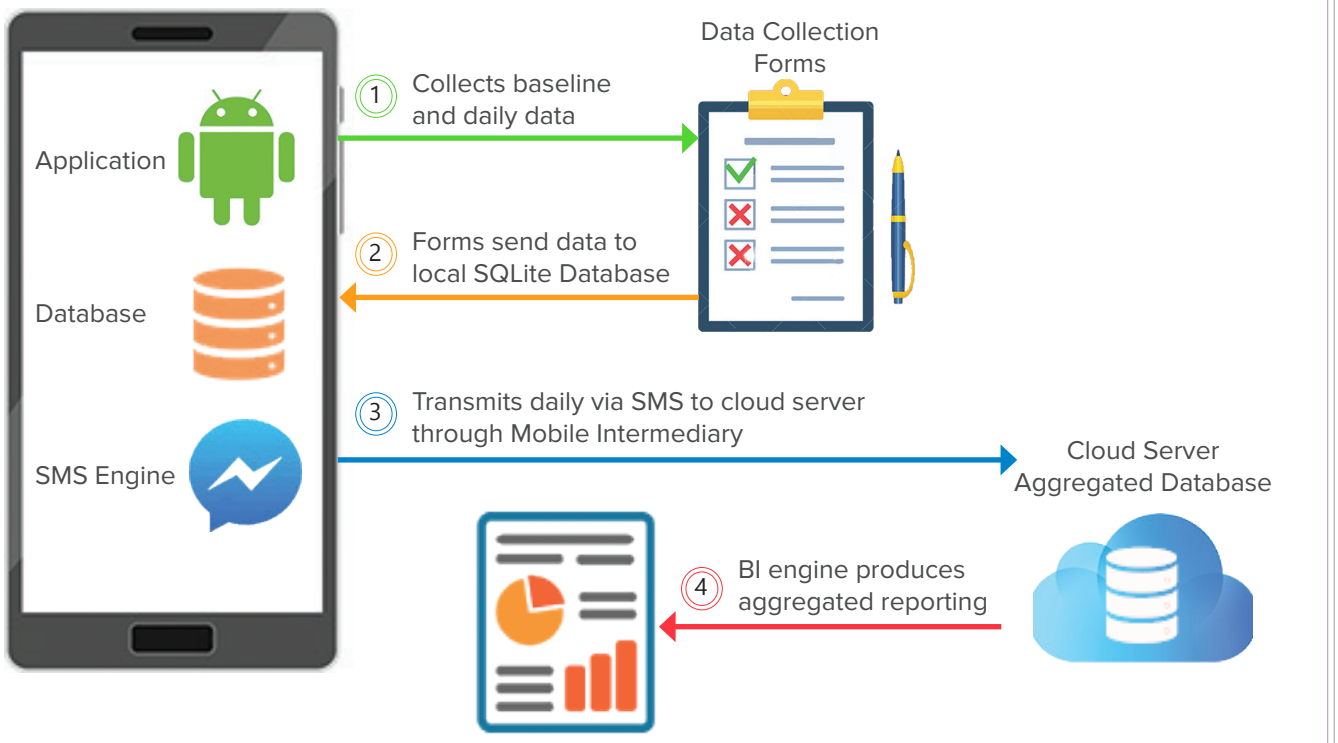


Figure 5. Electronic Communication Module

Table 4 on the next page provides the breakdown of the basic hardware, software, licenses and accessorises packages that will be required for the implementation, use, operation and management of the Secondary Performance Management System. It also provides what hardware and accessories, is needed at each level of the system from school to the national level. It also tells what department/unit will be issued with the equipment and the responsible officer. In addition, it provides the quantities in which they are required. A total of two servers, two sets of server rails, two server licences plus one thousand and fifty-seven (1,057) tablets, protective cases, carrying cases and solar chargers. Three percent of the total are spares and will be kept at the national level for distribution in case of breakdown, loss or theft. A protocol of providing replacements will be put in place by the leadership of MOEST.

Table 4 on the next page provides the breakdown of the basic hardware, software, licenses and accessorises packages that will be required for the implementation, use, operation and management of the Secondary Performance Management System.

ROADMAP COMPONENTS

LEVEL	QUANTITY PER LEVEL	RESPONSIBLE UNIT	RESPONSIBLE OFFICERS
School	867 Tablets	School	Head Teacher
	867 Protective Cases		
	867 Carrying Cases		
	867 Solar Chargers		
	867 SIM Cards		
	13 Software Packages		
Cluster	125 Tablets	Cluster	Cluster Advisors
	125 Protective Cases		
	125 Carrying Cases		
	125 Solar Chargers		
	125 SIM Cards		
	8 Software packages		
District	34 Tablets	District	DEM
	34 Protective Cases		
	34 Carrying Cases		
	34 Solar Chargers		
	34 SIM Cards		
Division	6 Tablets		
	6 Protective Cases		
	6 Carrying Cases		
	6 Solar Chargers	Division	EDM
	6 SIM Cards		
Central	3% spare @ Central	ICT	ICT Director
	2 Servers		
	2 Server Licences		
	2 Sets of Server Rails		
	System Software	ICT	ICT Director
	System Processes	Planning	Director Planning

Table 4. Breakdown of the basic hardware, software, licenses and accessorises

4.3 COMPONENT 3: GOVERNANCE, MANAGEMENT & CAPACITY BUILDING

The governance and management structures are key to the success of any system, and the Secondary Education Performance Management System is no different. Key to the system success is the proper functioning and use of the current systems and structures. The system is designed to support the current structure and system actors to deliver high level impact to student outcomes, via a continuous process of data driven decision-making at every level of the system.

Each level of the system, including the community, has a key role to play in the governance of education delivery. At the school level, the Head of School, Heads of Departments and Teachers must monitor progress of their students, the consumption of their existing resources and determination of required resources. The parents, organized through a Parent Teacher Association (PTA), the Board of Governors, Head of School and Cluster Leader must jointly monitor and communicate monthly performance. The Board of Governors must ensure that the community authorities are informed, and the wider community is aware. Similarly, the Cluster Leader must contextualise a school's performance based on other schools within his/her Cluster and seek to identify and foster best practice to improve performance across the cluster.

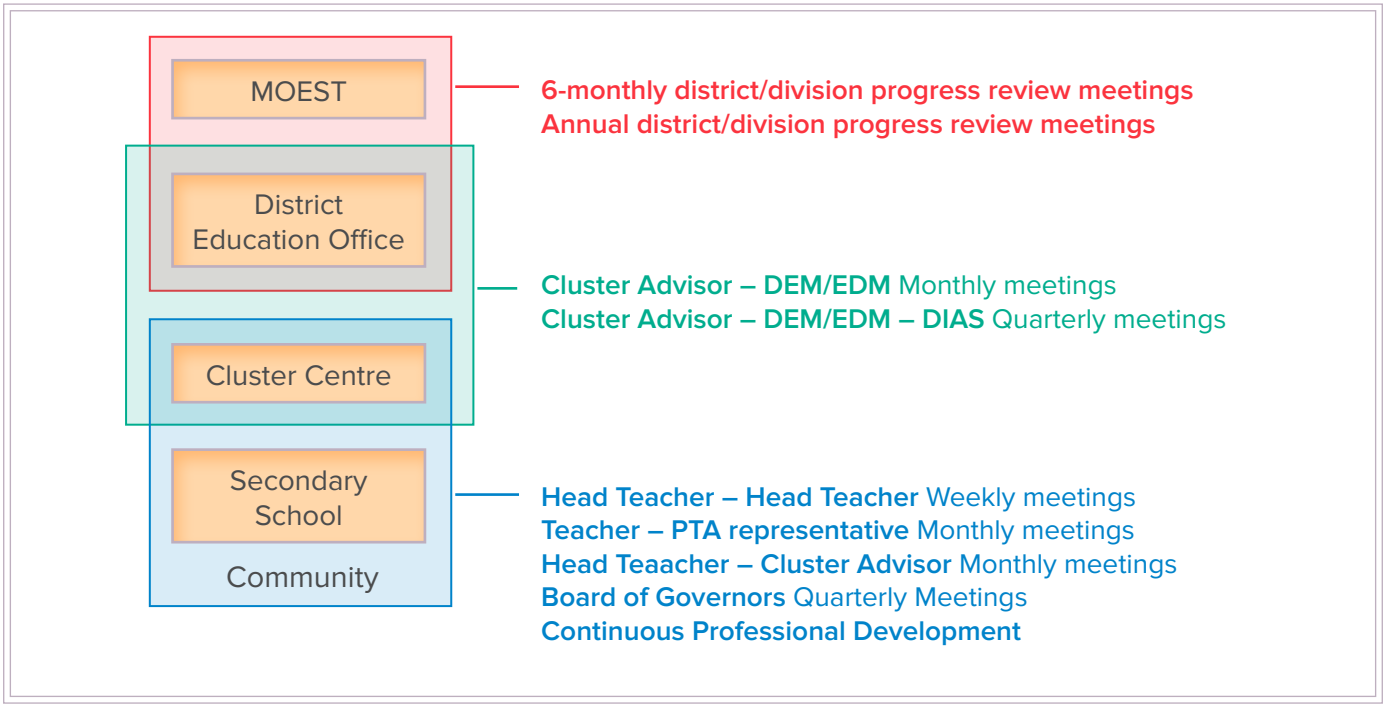


Figure 6. Performance Management Processes & Data Use

Figure 6 shows how using the current governance structures and the data derived from the Secondary Performance Management System, will be used to put in place structured dialogue focused on student outcomes. Key actors will be required to engage on a daily, weekly and monthly basis at the school level. The engagement will be structured around a few critical key performance indicators, which will be chosen so to impact teaching and learning. The dialogue structures will weave together school and community, school and cluster centre and cluster centre and district. This creates a holistic governance model and improves opportunities for enhanced performance.

4.3.1 Capacity Building

For the efficient functioning of the Secondary Performance Management System extensive capacity building across the sector must be implemented. The need for enhanced human resource capacity at the MOEST, Divisions, Districts, Clusters and Schools re the use, operations and management of the performance management system was the number two overall concern for all the groups that were consulted in this process. In group after group, individuals and focus groups, it was stated that they were provided little or no training on the current MOEST performance management system. For any system to function that involves, and depends on humans, it will require the necessary investments in the people that will use, operate and manage said system. The need for continuous professional development is key to the success of any system. Given the expected changes and the current state of the performance management systems, the budget for capacity building is the largest of the three components.

Box 2 details the activities necessary to have sector wide capacity in support of SEPMS.

BOX 2. CAPACITY BUILDING REQUIREMENTS

I. Finalization of performance management and governance processes
   a. School quality assurance processes
   b. School Continuous Professional Teacher Development processes
   c. Cluster-led school quality assurance processes
   d. Board of Governors processes
   e. Parent Teachers Association processes
   f. ICT skills, data analysis and data usage
   g. Software management and development
   h. Hardware management

ii. Capacity Assessment at all levels

iii. Development of capacity building materials

iv. Training of sector managers and system officers

v. Training of district trainers

vi. School capacity building plan

4.3.2 Capacity Building Target Population

The success of the system is directly related to the ability of the functionaries to drive the processes of the system. To ensure sufficient human resource capacity within the system, the initial training plan targets the following positions:

1. ICT Specialists (20 days)
2. Statistical Officers (10 days)
3. EMIS & DEMIS Officers (8 days)
4. MOEST, EDM, DEM & Clusters (4 days)
5. School-based actors (12 days)
6. Civil Society, other (tbd)

The SEPMS strengthens the governance model of education delivery and draws focus to the means of each stakeholder fulfilling his/her mandate and rights within the education model.

The SEPMS strengthens the governance model of education delivery and draws focus to the means of each stakeholder fulfilling his/her mandate and rights within the education model. As such, every stakeholder of school-level activities will benefit from improved understanding of school performance and the processes designed to support the use of data at school-level in decision-making. For example, improved communication of information from school to parents /community and strengthened processes for District/Cluster Education Officers to be involved and add value to school activities, will both support improved learning outcomes and create greater professional satisfaction and/or self-value of the individuals involved, as well as community engagement. This increased value will also occur at District, Division and National levels, as the added-value of continuous, reliable data sector drives performance management, decision making and budgeting.

5 IMPLEMENTATION ARRANGEMENTS

5.1 IMPLEMENTATION ARRANGEMENTS
5.2 IMPLEMENTATION SCHEDULE

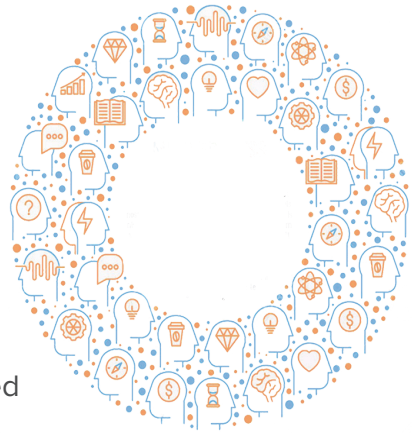
5.1 IMPLEMENTATION ARRANGEMENTS

To manage the implementation of the Secondary Education Sector Performance Management System, it is necessary to use the current management structure of MOEST and the decentralised structures. The SEPMS implementation is a large and complex intervention covering a minimum of 867 secondary schools, 121 Clusters, 34 local government authorities and 6 divisions. Implementation is phased, resulting in different divisions coming on-line at different times and therefore different levels of activities happening simultaneously across the different divisions. As a result of the multiple activities, there is a need for a dedicated implementation management team.

The SEPMS implementation is a large and complex intervention covering a minimum of 867 secondary schools, 121 Clusters, 34 local government authorities and 6 divisions.

Phased implementation managed by a national implementation team will allow different divisions to come on-line at different times and, therefore, different levels of activities will happen simultaneously across the different divisions.

The national implementation team will be made up of officers from the mandated departments within MOEST – Directorates of Secondary & Distance Learning (DSDE, Education Planning (DEP) and ICT (DICT); and the six EDM. There will be an appointed MOEST National Coordinator. The National Coordinator and team will receive support from two long-term external technical assistance, experienced in similar large-scale, complex Performance Management Systems implementation. The National Implementation Team will report to a Steering Committee, consisting of the Directors of each of the above-named directorate plus the Directorate of Administration (See **Figure 7**). The Steering Committee will be chaired by the Chief Director. The Steering Committee will report to Secretary of Education, Science and Technology (SEST), as well as provide the World Bank and the Development Partner Group with reports.



The National Implementation Team will work directly with the Divisions and Districts, in support of decentralized implementation. To ensure the Secondary Performance Management System is institutionalized from the outset, all implementation activities are carried out by system actors, with support where necessary from external technical assistance. This 'within-system' approach ensures that personnel from each level are involved in working with their subordinates and managers in building the knowledge, skills and procedures required for having an operationalized

IMPLEMENTATION ARRANGEMENTS

SEPMS and processes. The result is a system where each level knows what should be happening above, around and below them, building system strength as well as self-regulation.

The National Implementation Team is responsible for the daily, weekly and monthly monitoring of SEPMS implementation. The basis of this continuous monitoring is SEPMS usage reports, Cluster/District-validated school reports, Division-validated District reports and Division reports. The progress of implementation will be reported quarterly to the Steering Committee and Development Partner Group and annually, to the Annual Education Sector Review. SEPMS implementation result indicators will be included in quarterly and annual reporting. The SEPMS implementation activities will be independently evaluated at the end of Phase 2 and Phase 3.

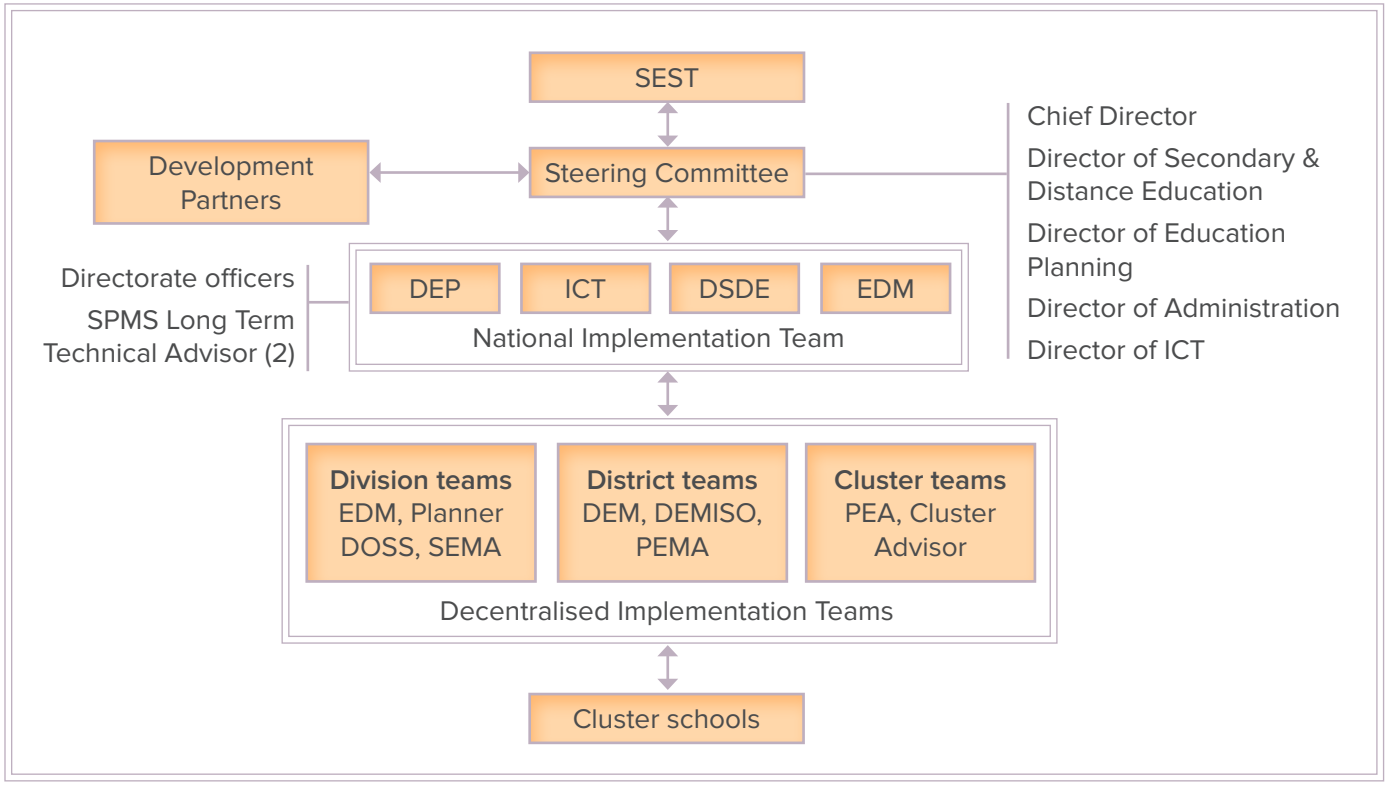


Figure 7. Implementation Arrangements

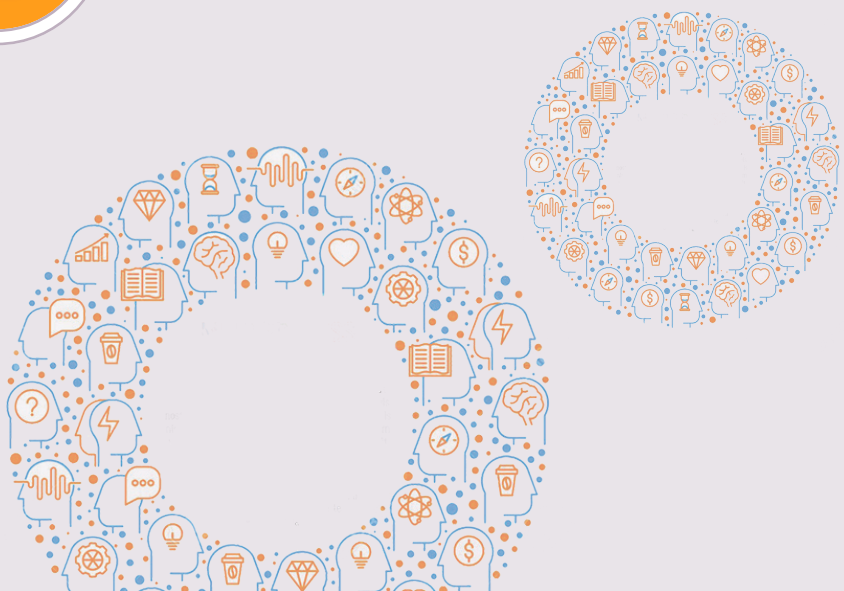
5.2 IMPLEMENTATION SCHEDULE

Table 5 provides the indicative, implementation schedule for the Secondary Education Performance Management Roadmap.

PHASE 1	PHASE 2	PHASE 3
Procure hardware, software & TA services	Select Head of School and 2nd staff from each school (n=1,734)	Roll out PHASE 2 to 867 schools (September/October 2021)
Develop business case and design protocol for the forms and reports	Commence initial trainings of system actors	Complete advance training of all system actors (n=220)
Development, field-testing of forms & Reports	Roll out PHASE 1 to 867 schools (commence September/October 2020)	Complete all trainings for ICT staff on systems operations troubleshooting & management
Finalize the forms and reports	Refine and debugging of software and telecommunication systems	Complete training for the EMIS and M&E staff on data visualization and communication
Design a solution based on the business case		Finalize all training materials for online access and reference
Develop training schema and materials		

Table 5. Indicative Implementation Schedule

6 SUSTAINABILITY & OWNERSHIP



SUSTAINABILITY & OWNERSHIP

Secondary Education Sector Performance Management System sustainability is built within the implementation modality through embedding it in the existing system and with existing actors. Efficiencies are created through the replacement of the multiple and expensive, approaches required annually for data capture, and the expected medium- to long-term gains to student learning outcomes.

The SEPMS data capture is a considerable one-off investment – tablets, accessories and training. However, with each school currently generating 10 monthly reports, 4 quarterly reports, an annual report, other ad-hoc requests for data, plus an annual census, it is expected that cost savings within two to three years will be in excess of the start-up cost.

The current system of paper-reporting often leads to data not being used. The knock-on effect of reports not seemingly used, is the reluctance of those reporting to invest time to ensure the contents of a report is accurate – why consume time sending information when there is no reward/feedback to what you report? The SEPMS looks to overcome this by investing in the people and the processes creating demand for data and use of automated reports at all levels, particularly the school-level. This generates focus on what is important – what the data informs us to improve the current performance. The strong focus on the human resource and inter-personal elements of performance management, further enhances sustainability.

This approach must factor in the expected, high attrition rates of Heads of School and other personnel and training facilities for new Heads of School entering service, as captured by the quarterly teacher returns that is submitted to the Districts and Divisions. A first mitigation measure will be to train at least two officers from every secondary school.

A critical question to the SEPMS relates to Hardware and Software. The tablets are relatively expensive to replace and the software maintenance and continuous refinement expensive to out-source. To counter these two sustainability issues, the holding, use and safe-keeping of the tablets will be added to the Scope of Work for Heads of School and Cluster Leaders and other officers supplied with tablets. In addition, from experience in other countries, the tablet becomes a status symbol for success in the education system, providing an incentive for holders to guard against loss or damage.

For software programming and software maintenance, the SEPMS places knowledge and skills for District, Division and Central ICT officers as critical for a sustainable system. It is forecast by the end of Phase 3, there will be an existing cadre of technical-proficient officers to respond to tablet fixes and a central-level team trained to program both the systems and software, creating a good level of autonomy within MOEST.

7 BUDGET

BUDGET

The total estimated budget cost is MWK 1,062,710,000 (USD 1,479,295[7]). The budget is broken down into three main areas as shown in **Table 6**, with capacity building accounting for the highest outlay.

	CORE AREAS	ACTIVITIES	TOTALS US$
1	Technical Assistance	Design Material Development Implementation Support	128,295
2	Hardware & Software	2 Servers 1,057 Tablets Software Application Visualisation	675,000
3	Capacity Building	School Leaders Education Managers System Technicians Analysts	776,100
		TOTAL	1,479,295

Table 6. Secondary Education Performance Management Roadmap budget

7 The components are financed through EQUALS Activity 3.2 EMIS Digitisation

8 KEY OPPORTUNITIES, RISK & MITIGATION MEASURES

KEY OPPORTUNITIES, RISK & MITIGATION MEASURES

The SEPMS takes advantage of key institutional opportunities. However, it also carries inherent challenges which need strategies for minimising risk. During implementation, a full risk mitigation analysis will be carried out. For the Roadmap, the key opportunities, risks and mitigation measures have been identified and included in **Table 7**.

OPPORTUNITIES	RISKS	MEASURES
1. Empowerment of schools and actors to take ownership of services and results	1. System actor capacity not sufficient for system	1. Greatest focus placed on system & actor ownership and capacity
2. Builds leadership and quality assurance capacity of the decentralized system	2. Technology too complex for existing capacity	2. System administrators, analysts & school-users already using smart phone & web-based applications
3. Institutionalises governance structures at each level of the system	3. System is not ICT sustainable	3. System uses open-source technology & cost of hardware supply is comparable to 2 years' census costs
4. Refocuses system on core performance indicator: student learning outcomes	4. Development Partners cannot agree to access data from one source	4. Policy initiative required to encourage all users to access education data through same entry point

Table 7. Key Opportunities, Risk and Mitigation Measures

ANNEXES

ANNEX 1: DOCUMENTS CONSULTED

1	The Local Government Act of 1998
2	The Decentralise Policy of 1998
3	National Training programme in Headship 2004
4	The Education Act of 2013
5	Education Sector Research, Monitoring and Evaluation Framework of 2013
6	Guidelines for the Management Education Functions Devolved to the District Councils 2014
7	EMIS Assessment Review 2014
8	National Education Standards May 2015
9	National Standards for Teacher Education October 2017
10	The 2017/18 Education Performance Report

ANNEX 2: KEY ACTORS & STAKEHOLDERS CONSULTED

MOEST	1. Directorate of planning 2. Directorate of Secondary 3. Directorate of Higher Education 4. Directorate of Administration 5. Directorate of Finance 6. Technical Services 7. Department of ICT 8. DIAS 9. DTED 10. DSEN 11. DSHN
Education Sub-national Management Team	1. EDMs 2. DEMs 3. Division Planning Officers 4. DEMISO 5. District Planners 6. PEAs 7. Head of Schools 8. Head of Departments 9. Teachers 10. Student government
Outside Groups	1. Development partners 2. NGO 3. Parents 4. Community Members
Other Government Agencies	1. E-Gov 2. MIE 3. Local Government 4. Commission for Higher Education 5. Ministry of Information 6. Statistical Office

ANNEX 3: NEEDS ASSESSMENT FINDINGS & RECOMMENDATIONS

General Findings

i. A lack of access to much data at all levels of the system
ii. Inadequate numbers of trained personnel at MOEST, Divisions, Districts and Schools to use operate and manage a performance management system
iii. Lack of and unreliable power supply, at Division District and Schools
iv. Minimal ICT infrastructure at MOEST to facilitated data server operations
v. Inadequate ICT infrastructure at Division Districts and almost zero at the majority of Schools
vi. Historical data stored across multiple devices without a backup strategy
vii. A non-uniformed data collection system
viii. Time taken for the collection, processing and dissemination is too long thus rending the data useless at the school level.
ix. The storage of EMIS data bases on staff personal computer without backup
x. Lack of ownership of the data collected at school and zero feedback on data provided by schools
xi. Need for greater leadership and collaboration between and among the directorates at MOEST and other levels of the system
xii. A restructuring of the data collection tools for the system
xiii. Inadequate processes that facilitates focus on student outcomes/student performance at every level of the system.
xiv. Poor information and communication flows across the system
xv. Uncoordinated multiple systems of data collection storage processing and reporting
xvi. High cost of operating and managing the current system
xvii. Need to address data inaccuracy and data loss in the data collection process

ANNEX 3: NEEDS ASSESSMENT FINDINGS & RECOMMENDATIONS

General Recommendations

a. Develop Key Performance Indicators (KPIs)that will satisfy the data needs of schools, clusters districts, divisions MOEST Directorates and other stakeholder of the education system, focusing on learning outcomes

b. Redesign the Annual Questionnaires and develop new data collection tools that will facilitate daily weekly termly and annually based on the Key Performance Indicators and input from education stakeholders

c. Simplify the methodology for data collection, storage, processing, analysis and reporting

d. Combine the systems on to one data base and provide appropriate access to this data base for education personnel and the public.

e. Develop a comprehensive plan to enhance the current IT infrastructure at MOEST, Divisions, Districts and Schools so that it facilitates both real time and periodic data flows for decision making at all levels of the system and populate a public wed site hosted by E-Gov/ or MOEST

f. As part of any solution develop a detailed IT capacity development program for MOEST IT staff, District IT Staff and Head Teachers in the use operation and management of the technical aspects of the system.

g. Develop a comprehensive capacity building plan for all staff that use operate and manage the system

h. Develop a unified GIS mapping plan for all schools in Malawi and an implementation timetable for said mapping

i. Develop a plan for a performance management system that reports on the delivery of the school finance, Teacher attendance and other information the Head teacher requires for the daily management of schools

j. Design a system that minimise the operational cost while providing the required services

k. Redesign/ revise M&E Framework to cover each level of governance

l. Include within any new or modified system, processes and functionary capacity for data validation

m. Provide sensitization and accessibility for the general public to education data

n. Policy leadership and implementation leadership for single system