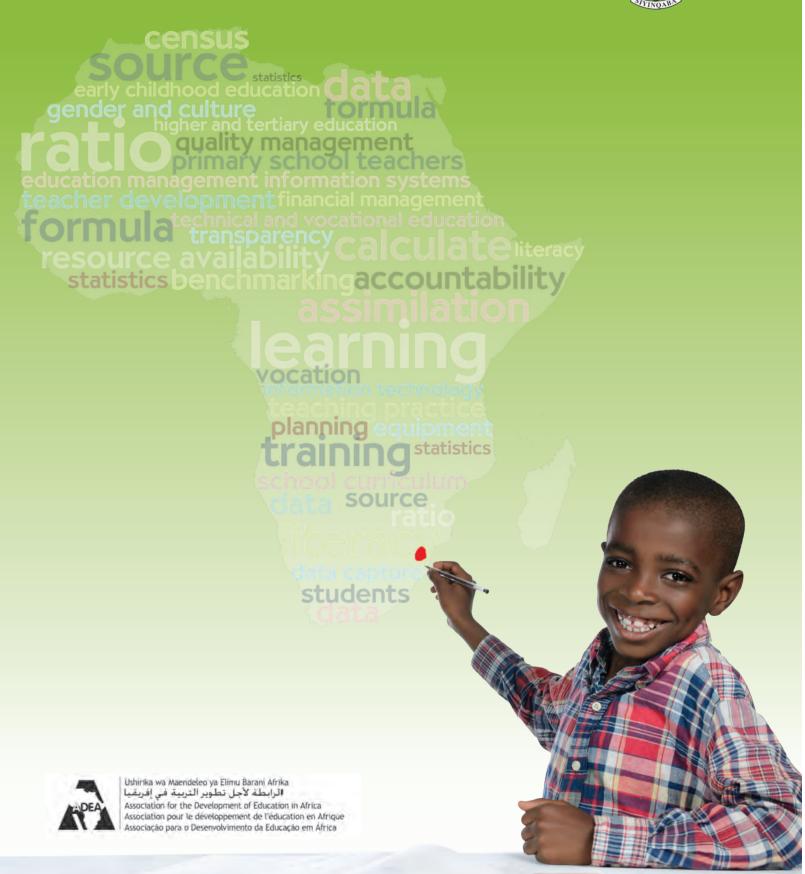
# **SADC EMIS Norms and Standards Peer Review Assessment Report**



# **SWAZILAND**









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#### **PREFACE**

A key challenge facing the SADC region's ability to report on its human resource development achievements and challenges is information gaps or "data blanks". This is a problem of inadequate data coverage of all education and training institutions (both public and private) and all sub-sectors in the education system. In other cases, it is the structural arrangements for the management of education in the absence of a policy, and norms and standards, for the management of information on education and training. Some countries have more than one Ministry responsible for the delivery and management of education and therefore each Ministry collects its own data and information. Issues of duplication, varying definitions and poor coordination of sector wide data arise, affecting the quality and availability of education statistics. These issues are compounded when comparisons are made across countries. As a result, few Member States are reporting comprehensively on all the required global education indicators. This tends to lead to a number of problems in monitoring and evaluating the performance of an education and training sector in countries and across the region.

Ministers of Education in the SADC region have placed importance on effective planning and policy making based on sound information and rigorous monitoring and evaluation of the performance of education systems by prioritising Education Management Information System (EMIS) in their regional agenda. To facilitate all countries in the region to effectively report on all the agreed set of statistics and indicators and to ensure cross-country comparison, minimum norms and standards for EMIS are essential. The minimum EMIS norms and standards are intended to guide countries in developing or improving and maintaining appropriate, comprehensive and sustainable national education management information systems. In addition, they are intended to facilitate harmonisation of education management information systems to contribute towards the development of regional and continental EMIS networks.

The SADC EMIS Norms and Standards code contains 17 minimum norms and standards covering policy and legal frameworks, resource availability and utilization, statistical processes and education information reports. SADC Ministers of Education adopted this code at their annual meeting in Kinshasa, Democratic Republic of Congo, in March 2010 and by doing so, committed themselves to adhere to these norms and standards, thereby improving their EMIS. The Assessment Framework and process developed by Member States, stemming from the code, was approved by the Ministers at their annual meeting in 2012 with the intention that all member countries would become compliant. The Swaziland peer review is therefore a follow up to these commitments and a similar process is envisaged in other SADC Member States.

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#### **ACRONYMS**

ACR Annual Census Report

ADEA Association for the Development of Education in Africa

AU African Union

CSO Central Statistics Office

DQAF Diagnostic Quality Assessment Framework
EMIS Education Management Information Systems
ICT Information and Communication Technology

ISCED International Standard Classification system of Education

M&E Monitoring and Evaluation

MIS Management Information Systems
MoU Memorandum of Understanding
MOET Ministry of Education and Training
NQF National Qualification Systems

NFE Non Formal Education
NSO National Statistics Office

OVCs Orphans and Vulnerable Children
REC Regional Economic Community

SADC Southern African Development Community

TVET Technical and Vocational Education and Training

UIS UNESCO Institute for Statistics

UN United Nations

#### **DEFINITION OF TERMS**

- 1. Administrative Data the set of units and data derived from an administrative source.
- 2. Administrative sources refers to data and statistics generated internally by government.
- 3. **Aggregated data** The result of transforming unit level data into quantitative measures for a set of characteristics of a population.
- 4. **Benchmark** a recognised standard, or a reference point, that forms the basis for assessment or comparison.
- 5. **Data Dictionary** refers to a reference book on the standardized concepts, definitions and classifications used by the Ministry in the production of its education statistics.
- 6. **Data providers** refers to all bodies and agencies that produce statistics. These include education and training institutions, households, enterprises, administrations and other respondents.
- 7. **Coherence -** The degree to which data can be successfully brought together with other data within a broad analytical framework and over time.
- 8. **Education and training institutions** refers to schools, colleges, universities, centres or any formal and non-formal education and training provider that occupies an institution and provides a recognised education programme.
- 9. **EMIS** refers to a System for collection, processing, analysis, publication, dissemination, and rendering of Information services for the Management of Educational resources and services.
- 10. **Guidelines** directions or principles used in the development, maintenance and application of rules. They may or may not be mandatory, but are provided as an aid to interpretation and use of rules.
- 11. Imputation refers to the process of identifying missing data from a census survey and taking steps to adjust or modify the data accordingly.
- 12. Individuality a single person or institution.
- 13. Learner refers to any pupil or student or person enrolled in an education and training programme.
- 14. **Metadata** is information on the underlying concepts, definitions, and classifications used, the methodology of data collection and processing, and indicators or measures of accuracy of the statistical information.
- 15. **Ministry of Education** the singular term "Ministry of Education" is used synonymously with its plural form "Ministries of Education" to include all those government Ministries responsible for the various levels of education and training in a country.
- 16.**Protocols -** is a set of guidelines or rules.
- 17. Preliminary data results that have not been verified sufficiently to be published.
- 18. **Scope** coverage or sphere of what is to be observed. It is the total membership or population of a defined set of people objects or events.
- 19. **Statistical authority** shall mean, at national level, the national or central statistical office (CSO, NSDS, or Statistical authority) and other statistical bodies in charge of producing and disseminating African statistics.
- 20. **Statistical Value Chain** refers to the statistical process from the source of data to the final statistical output. For example, it concerns the collection of information in school records, the compilation of an annual census survey, the collection and verification at lower levels of governance (circuit, district, regional, provincial), the inputting of the data, the data cleaning and imputation and the generation of statistical tables and reports.
- 21. **Secondary data** refers to data collected by someone other than the user. Examples are data obtained from research, studies and surveys produced outside of the Ministry of Education.
- 22. Special needs refers to learners under difficult conditions that are vulnerable, marginalised and/or with disability.
- 23. **Structures** refers to various sub-units of the Ministry responsible for education administration by area of specialisation and geographic distribution.
- 24. **Sub-Sectors -** pre-primary education, primary education, secondary education, Technical and Vocational Education, Teachers' training education, Non-formal education, Higher and tertiary education.
- 25. Validity correctness and reasonableness of data findings truly represent the phenomenon you are claiming to measure.
- 26. Verification the process where data accuracy and inconsistencies are checked.

#### 1. INTRODUCTION

Effective country capacities in Education Management Information Systems (EMIS) is one of the priority areas in SADC's Regional Education and Training Implementation Plan and the African Union's Plan of Action for the Second Decade.

Ministries of Education in the region face a number of challenges with regard to their education statistics. There is a policy and institutional gap in terms of the legal mandate to compel compliance of education and training institutions to supply accurate, comprehensive information and relevant statistics for planning, budgeting and monitoring purposes. It is also evident that there are quality gaps in terms of common standards, including concepts, definitions, and methodologies. A capacity gap in human resources and infrastructure also exists. In the light of these, SADC Ministers of Education directed the SADC Secretariat, in July 2008, to develop and harmonise statistical norms and standards for the region in order to address the challenge of benchmarking capacities and evaluating progress towards effective management information systems.

A set of EMIS Norms and Standards were collaboratively developed by member states, containing 17 principles and their corresponding 84 standards. These were adopted by Ministers of Education at their SADC meeting in Kinshasa in March 2010. Subsequently, the SADC Secretariat, with the assistance of ADEA's Working Group on Education Management and Policy Support (WGEMPS) and the region's EMIS Technical Committee, elaborated an assessment framework to benchmark member states' performance against the agreed norms and standards. SADC Ministers of Education approved this framework in 2012 at their annual meeting.

The EMIS Norms and Standards code of practice has four areas of focus:

- A. Policy and Legal Frameworks
- B. Resource Availability and Utilization
- C. Statistical Processes
- D. Education Information Reporting

The first two areas of focus – Policy and Legal frameworks, and Resource Availability and Utilization – are the prerequisites or fundamental conditions that impact on the environment in which EMIS operates. There is the issue of ensuring that the institutional and legal environment, and the availability and use of human, financial and technological resources, support a well-functioning EMIS. The other two areas of focus look at the methodology and processes that need to be in place to produce quality statistics and information, as well as the appropriateness and timeliness of the products and outputs produced by the process. Each area has a set of norms that commit Ministries to an expected position or way of producing education statistics. A set of standards of good practice for each of the norms provides a reference for reviewing the implementation of the code.

#### 2. PURPOSE OF THE NORMS AND STANDARDS

The main purpose of the EMIS Norms and Standards is to have a set of criteria and measures for advocating best practice and benchmarking countries' capabilities in being able to produce relevant, accurate, timely and comprehensive education statistics and information. Adopting these Norms and Standards ensures countries will have sustainable, comprehensive and appropriate education management information systems in harmony with international and regional systems and practices.

This Norms and Standards Assessment Framework can be used for:

- Self-assessment by producers of education statistics.
- Advocacy in debates for ensuring adequate EMIS resourcing and infrastructure for appropriate Ministries of Education.
- Reviews performed by SADC in assessing regional capacity in EMIS and country compliance with the framework.
- SADC accreditation for quality and acceptable statistics.

#### 3. QUALITY OF STATISTICS

Underpinning the norms and standards is a principle of the quality of statistics which is defined as 'fitness for use'. It has eight dimensions of quality, namely relevance, accuracy, timeliness, accessibility, interpretability, coherence, methodological soundness and integrity. Five of these eight quality dimensions are also covered in the Data Quality Assessment Framework of the International Monetary Fund (IMF) and the UNESCO Institute for Statistics.

- The *relevance* of statistical information reflects the degree to which it meets the real needs of users. It is concerned with whether the available information sheds light on the issues of most importance to users.
- The *accuracy* of statistical information is the degree to which the output correctly describes the phenomena it was designed to measure.

- The *timeliness* of statistical information refers to the delay between the point of collection to which the information pertains, and the date on which the information becomes available. It considers the frequency and punctuality of release.
- The *accessibility* of statistical information refers to the ease with which it can be obtained. The cost of the information may also be an aspect of accessibility for some users.
- The *interpretability* of statistical information refers to the ease with which users can understand statistical information through the provision of metadata. This information normally includes the underlying concepts, processing and indicators or measures of the accuracy of the statistical information.
- The *coherence* of statistical information reflects the degree to which it can be successfully brought together with other statistical information within a broad analytical framework and over time. The use of standard concepts, classifications and target populations promotes coherence, as does the use of common methodology across surveys.
- *Methodological soundness* refers to the application of international, national or peer-agreed standards, guidelines, and practices to produce statistical outputs. Application of such standards fosters national and international comparability.
- The *integrity* of statistical information refers to the values and related practices that maintain users' confidence in the Ministry producing statistics and, ultimately, in the statistical product.

These dimensions of quality are overlapping and interrelated. Failure to comply with any one dimension will impair the usefulness of the information.

#### Ranking Methodology

The overall country ranking of an EMIS system will be obtained by averaging all the scores for all the 84 standards under the 17 principles, and will be based on the table below. An overall assessment of greater than 3.3 indicates that the country has an EMIS system which produces quality statistics. Similarly, an overall average score of between 2.6 and 3.3 classifies the country as having acceptable statistics. An average score below 2.6 indicates the country has questionable or poor statistics.

	Range
	3.4 to
Quality Statistics	4.0
	2.6 to
Acceptable Statistics	3.3
Questionable	1.8 to
Statistics	2.5
	1 to
Poor Statistics	1.7

#### 4. PROFILE OF SWAZILAND EDUCATION SYSTEM

In 2012, Swaziland had 800 early childhood centres, 595 primary schools, 255 secondary schools, 5 public TVET centres, , one national public university and one private. In 2010, Swaziland had 12,511 teachers in schools, of whom 73% were qualified and almost half of which were female.

The Ministry of Education and Training has recently extended its mandate beyond education to include training and skills development but has yet to formally register post-secondary private sector institutions under its system. In 2011, the Ministry introduced formal recognition of early childhood centres<sup>1</sup> and, recently, the Prime Minister announced the introduction of a reception year at primary schools.

#### Enrolment in education and training institutions in Swaziland, 2010

	ECCE Centres	Primary	Junior Secondary	Senior Secondary	Public TVET Colleges	Higher Education
Learners		241,231	60,963	27,887	n/a	n/a
Female		114,690	30,313	13,743	n/a	n/a
%						
Female		48%	50%	49%	n/a	n/a

Source: Ministry of Education and Training, Swaziland Annual Education Census Report, 2010

Swaziland introduced free primary education in 2010 in a phased manner; initially in grades 1 and 2, moving to grade 3 and 4 in 2012, and so on. The Ministry, however, faces challenges with limited infrastructure, qualified teachers and sustainable funding. Primary school completion rate is at 60% which is lower than many neighbouring countries such as

<sup>&</sup>lt;sup>1</sup> Early childhood community centres are yet to be included. Plans are afoot to include these in 2014.

Botswana (87%), Zimbabwe (81%) and Zambia (72%). Very high primary repetition rates of over 20% have contributed to school drop-outs. A significant proportion of teachers are under-qualified, which compromises the quality of teaching and learning.

The progression of the girls to higher levels of schooling has lagged that of boys by approximately 5%. However, boys are on average older than their female counterparts in secondary schools.

At the secondary level, between 74% and 88% of children of the appropriate age are not enrolled in schools.

In terms of structure and management, the Ministry is highly centralised with four regions where some functions are devolved.

Despite having one of the highest levels of poverty (63%), Swaziland is classified as a lower middle income country and therefore receives the lowest levels of overseas development assistance. The Ministry of Education and Training (MOET) is perceived to be lagging behind in streamlining sector coordination with its few donors, because of a lack of capacity. <sup>2</sup> EMIS could play a role in strengthening this capacity.

#### 4.1 EMIS System

Prior to 2008, the Ministry relied on the Central Statistical Office (CSO) to provide its education statistics. There was a history of challenges faced by the Ministry, including a lack of independence from CSO's support in producing timely statistics and publications and it made it difficult to generate reliable statistics. A decision was made to transfer the function to the Ministry. Since then, MOET's EMIS has slowly evolved in system development and capacity.

The transition of EMIS from CSO to MOET had some unintended consequences. Statistics on education prior to 2008 are now only available in hard copy, which hinders the ability of the Ministry to undertake time series analysis. Additionally, inadequately staffed by qualified personnel, the EMIS unit struggles to develop its current database, using MS Access, and tends to rely on external consultants such as ADEA to upgrade and extend its systems.

The EMIS functions in MOET are recognized as being central to the Ministry's capacity to monitor, evaluate and report on the achievement of key policy goals and objectives. However, the EMIS unit remains under-resourced and inadequately staffed, with its functions remaining highly centralized despite plans to decentralise functions to the regions. Budgetary constraints limit activities of EMIS, which shares the Principal Secretary's budget in which limited priority is given to EMIS-related activities. There is no independent audit to check the reliability of the statistics collected by EMIS although there have been no cases of contradictory statistics. The review noted that access to private school data sometimes proves difficult, in addition to obtaining data from remote schools owing to poor road access.

"It is of the utmost strategic importance that EMIS be fully, appropriately and professionally staffed and resourced. To do otherwise is to limit the capacity of the MOET to manage the system effectively and limit its ability to implement any policy change." The Swaziland Education and Training Sector Policy (April 2011:p46)

Access to public information is not guaranteed by law in the country. There is no freedom of information, since the Official Secrets Act of 1963 is still in operation, which hinders the capacity of the Ministry to release public information. Surveys of parent, teacher or learner satisfaction are rare and the public are seldom involved in monitoring education performance.

# 5. EMIS PEER REVIEW: FINDINGS AND RECOMMENDATIONS

Overall, Swaziland has, in terms of the SADC EMIS framework rating, scored an average of 2.7, which places it as having acceptable standards. An average score below 2.6 indicates the country has questionable or poor statistics. Given that it is on the cusp of acceptability, it has numerous challenges to face, particularly in the area of having an appropriate EMIS policy and legal framework as well as allocating sufficient resources, both financial and human, to facilitate its effective functioning. This has an impact on its statistical processes, which at 3.2 remain good. The biggest challenge in its statistical information dissemination is poor timeliness, often for budget reasons, which has an impact on the accuracy and reliability of the disseminated information.

In terms of the four focus areas under evaluation, below are the findings of the peer review.

#### A. POLICY AND LEGAL FRAMEWORK

<sup>&</sup>lt;sup>2</sup> Swaziland: Effective Delivery of Public Education Services. Part 1. Pg 12 (2013)

<sup>&</sup>lt;sup>3</sup> Swaziland: Effective Delivery of Public Education Services. Part 1. Pg 7 (2013)

Swaziland is lacking appropriate standards in terms of having an EMIS policy and legal framework that would enable the Ministry to provide education statistics meeting the eight dimensions of quality earlier mentioned. The peer reviewed score of 2.5 indicates that its policy and legal framework is not adequate and the Ministry falls into the category of producing questionable statistics because of this gap.

#### NORM 1: Mandate for Data Collection for the Education Sector

#### (a) Legal Mandate

There is no EMIS Policy with a clear legal mandate giving the Ministry of Education and Training the right to collect information from all education and training institutions, both public and private, for educational statistical purposes. The Government and the Ministry use the CSO Act of 1967 in carrying out this activity. There are numerous policy documents over the recent years, such as the Swaziland Education Act (), Swaziland Education and Training Policy (), the National Education and Training Improvement Programme (2013), which recognize the importance of EMIS in planning and budgeting. The EMIS unit was officially gazetted as a department in 2009 through Legal Notice No. 25 of 2009. However, the policies and legal Notice do not address the roles of EMIS in data collection. Even the CSO Act of 1967 does not cover sub-sectors such as TVET and Non-formal education.

The absence of a clear EMIS policy hampers the efforts of the Ministry to deal with no-compliance. While the majority of the schools comply and provide education information, it is important to have an EMIS policy that stipulates penalties for non-compliance. The staff interviewed indicated that the Ministry uses the Teacher Service Commission Act which compels teachers to provide information upon the request of the Ministry but there is insufficient explicit mention of education statistics.

#### (b) Mandate to coordinate EMIS processes

There is no law or policy that gives the Ministry a mandate to collect and integrate data from the different sub-sectors and various government agencies dealing with education and training. Hence data from TVET, non-formal education and police training institutions is not integrated into the annual EMIS reports. However, there are plans (even though these are not documented) within the EMIS division to start the process of collecting and integrating data from various government agencies like correctional services, nursing colleges and the police training college.

EMIS information is shared with the Public Budgeting Committee (PBC) while EMIS data is regularly shared with key players in education that include other government departments and agencies such as UNICEF, the EU and UNESCO. Delays still, however, exist because of capacity issues within the unit.

There is close collaboration between the CSO and the Ministry of Education and training. This collaboration is, however, not institutionalized, remaining limited to the level of mutual understanding between CSO and MOET officials. The roles and responsibilities of MOET are indicated in the booklet of the Annual Education Census.

#### **RECOMMENDATIONS**

- The Ministry of Education and Training needs to have an EMIS policy dealing with education statistics. This policy should address the legal roles and responsibilities of EMIS at school, regional and national levels. The policy should also stipulate the vision and goals of EMIS in addition to complementing the revised CSO Act. The over-all responsibility of the Ministry in the area of education and training statistics should also be stipulated in the policy.
- The Ministry of Education and Training should facilitate the development of an EMIS strategy providing the strategic orientation of EMIS in Swaziland. The peer review further recommends that the Ministry considers moving away from the collection of disaggregated information and into learner unit record information. This will enhance the quality and usability of EMIS information, particularly at an operational level.
- The Ministry of Education and Training should formalise the relationship with CSO through the signing of a Memorandum of Understanding (MoU). This will ensure sustainability of the relationship between the two organs of state. This MoU may translate into, or contribute to, the development of the Master Plan (National Strategy for the Development of Statistics) in Swaziland.

#### **NORM 2: Quality Commitment**

#### (a) Policy and Procedures to ensure quality statistics

The staff in the EMIS unit state that the unit promotes and ensures quality in the statistical value chain taking into account national and acceptable international quality standards. However, this practice is not documented.

A process is in place for data collection, processing and dissemination. The system was developed through engagement of the ADEA Working Group on Education Management and Policy Support. The Ministry has not made resources available for validation and verification; this is done through ad hoc visits by the EMIS officials.

#### **RECOMMENDATIONS**

- The EMIS Unit should document all processes of the statistical value chain. These are the identification of user requirements, questionnaire designs, piloting, data collection, data processing, publication and dissemination.
- The review further recommends that CSO should draw a sample of a few schools, as part of the MoU, and undertake a data quality audit annually.
- o The EMIS Unit should compile a school report card based on the annual census data which is a concise profile of each school, and this needs to be send back to schools for their verification and use.

#### NORM 3: Statistical Confidentiality

#### (a) Statistical Confidentiality

The EMIS unit adheres to the practice of statistical confidentiality. However, there is no documentation guiding staff members on the issue of statistical confidentiality. Although the system is such that individual students can be identified at Primary and Secondary education levels, it is never done.

There is an informal protocol applying to external users accessing Ministry's statistical data: the Permanent Secretary gives permission to such users on an ad hoc basis.

#### **RECOMMENDATION**

• The EMIS unit should develop a protocol dealing with the issues of confidentiality and access of data by external users.

#### **NORM 4: Reporting Accountability**

#### (a) Statistical reports

Annual statistical reports are regularly produced and published. However the reports are delayed in dissemination beyond 12 months of data collection. The potential to report current statistics in the same year exists. The only challenge is that EMIS and the systems that are in place are very labour intensive. Thus, if the MOET were to approve a budget for Human Resources for three months, all data could be processed timely. The EMIS unit is expected to provide quarterly reports to Parliament, by law. However, such a law has never been enforced.

#### (b) Report of Education statistics to international organizations

Swaziland lacks comprehensive data in ECCD, TVET and Tertiary sub-sectors, largely because of their lack of organisation of these sub-sectors. The ECCD sub-sector is still largely in private hands and the number of institutions fluctuates dramatically – for example, there were 800 ECCD centers in 2011 and only 450 in 2013 as some have closed down. Similarly, private TVET and Tertiary institutions face challenges, partly because the Ministry needs a national qualifications framework (NQF) to effectively categorise types of programmes. Swaziland is often late or missing in reporting internationally to bodies such as UIS, SADC and AU.

#### RECOMMENDATIONS

- It is a standard practice for the EMIS unit to hire staff on a temporary basis for few months to deal with labour intensive data capturing at key periods. However, the unit often faces budget challenges as it is not recorded as a separate activity. Therefore, it is recommended that this function is explicitly budgeted for in the EMIS budget.
- The National Qualifications Framework for TVET should be finalised as a matter of urgency.
- The Ministry should comply with international reporting requests by SADC, AU and UIS.

#### NORM 5: Impartiality and Objectivity

It is clear that the Ministry's statistics are compiled on a scientific basis that is determined by the statistical considerations and that there is no external political interference. Most times, corrections are made on the publications if discovered early

enough. Procedures are available but are mostly released only to stakeholders that request for them. There is no policy dealing with conditions under which policy makers can access data before its release, which could be outlined in a dissemination policy. Errors in statistics are corrected but the corrections are rarely publicized.

#### **RECOMMENDATIONS**

- Information on the methods and procedures for statistical production used by the Ministry should be made public.
- Conditions under which policy makers can access data before its release should be outlined in the dissemination strategy or in a Publication Standard.

#### **NORM 6: Registration of Institutions**

All schools have a unique number (the EMIS code) but the private TVET and ECCE sub-sectors have organizational and coordination challenges which are more related to administrative and policy issues than to EMIS.

Currently, the system of school registration, whereby institutions apply to the Permanent Secretary for registration, is very informal. A more systematic approach would include timelines by when the application process would move from one stage to the next.

#### **RECOMMENDATIONS**

- The Ministry needs to set up a committee to fast-track the registration of all non-formal institutions and TVET providers.
- The EMIS division needs to compile a Master List standard dealing with the update of all institutions, outlining the process step by step with timelines attached to the various steps.

#### **NORM 7: Registration of Learners**

Most births are registered in Swaziland and children are required to present their birth certificates when enrolling in Grade 1. However, the system for allocating children a unique identity number is complex and requires permission from both parents. Consequently, most children do not have unique identifiers, which could be used to be to underpin a learner unit record system in EMIS. At the post-secondary and tertiary levels, institutions do not gather individual age data.

#### **RECOMMENDATIONS**

• The Ministry of Education and Training must sign an MoU with the Home Affairs Ministry to improve the quality of certificates by including the allocation of a unique PIN number.

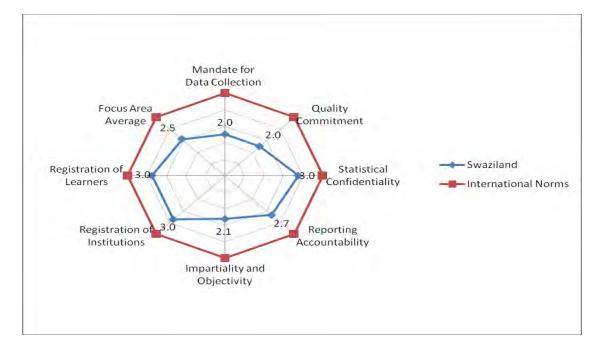


Figure 1: Policy and Legal Framework

#### **B. RESOURCES AVAILABILITY AND UTILIZATION**

#### **NORM 8: Adequate Resources**

#### (a) Finance

There is insufficient allocation of a budget for an effective EMIS system, an issue that of late has been noted in various education sector reports. It is one of the major reasons for the poor timeliness of EMIS data. EMIS has no vehicles for school follow-ups and verification of data, no budget for fuel or the flexibility to contract temporary human resource to fast track statistics. Additionally, the EMIS budget is collapsed under a number of areas in a basket budget known as the Permanent Secretary's budget. The EMIS unit finds its funds needed for effective functioning depleted for other activities under this basket budget.

Although an EMIS cost centre was created two years ago it remains non-functional. However, MOET staff informed the peer review team that it will allocate the EMIS budget to this cost centre in 2013/2014 which will effectively ring fence the funds.

#### (b) Personnel

All senior officers perform a variety of tasks because existing human resources are neither adequately qualified nor available. Additionally, on the whole, only the EMIS Manager has appropriate qualifications for the unit as he is a Research and Analyst expert with a Master of Science degree in education statistics. According to the organogram (see below) many critical posts remain unfilled.

A critical challenge facing EMIS functionality is the lack of a programmer and statistician. These are scarce specialist skills in which government competes with the private sector. EMIS relies on consultants outside the public sector for software application development. Even the current EMIS system for General Education was developed by the Association for the Development of Education in Africa's (ADEA) Working Group on Education Management and Policy Support. This technical support was funded by the European Union.

Despite 29 programming posts found in Government Computing Services, established to support Ministries with these skills, there are currently only 12 posts filled, of which six are available to provide technical assistance to ministries. The review noted that the turnover of these staff is very high. To address this, a strategy is in place to attract and retain specialist skills by introducing a recruitment and retention allowance of 25 per cent of a specialist's salary. Government has prioritised Ministries of Health and Education and Training in the area of human capital development.

Similarly, CSO provides statistical support through the establishment of a staffing post dedicated to the Ministry of Education and Training. However, this post is still to be realised with the presence of a statistician in the Ministry.

One of the major causes for delays is that the EMIS staff members perceive that they are under-compensated. Earlier in the year, there was about 5 weeks of disturbances because staff in the data processing unit, not happy with their salaries, decided to "work to rule" which keeping strictly to their job descriptions. All EMIS posts were undervalued and as such the Ministry might find it hard to sustain the current quality of EMIS in the future.

Training of EMIS staff is taking place but remains infrequent with some staff reporting that their last in-service training was in 2004. Internally, the EMIS unit has provided in-house training on statistical analysis, and how it links to policy, to senior Ministry staff in 2010/2011. Such training can, however, not be sustained due to budget issues. The unit also offers "Dashboard" and "Policy Briefs" on its webpage, which are used as training material on data usage. EMIS is supported by agencies such as UNESCO and ADEA.

Cumbersome bureaucratic procedures have hindered the participation of Swaziland's EMIS Manager and staff in key strategic meetings organised by international and regional organisations such as AU, SADC, UNESCO and ADEA. More than five years have passed since the EMIS Manager attended a SADC EMIS Technical Meeting. This compromises the capacity of the unit to be up to date with regional requirements, new developments and promising practices. Part of the challenge remains the requirement of the invitation to be through the Ministry of Foreign Affairs (which sometimes delegates inappropriate representatives to participate) and the fact that all external missions require approval of the Prime Minister, even if the meeting is purely technical.

#### **RECOMMENDATIONS**

- All funds allocated for EMIS activities should be moved to a separate EMIS budget.
- Resources are not commensurate with the statistical programmes, personnel, facilities and equipment, training and financing of the education management information system.
- The EMIS Manager should benchmark the structure, the resources and system of work of EMIS in neighbouring countries by visiting five SADC countries, including Zambia, Namibia, Mozambique and Free State province in South Africa.
- The Government Computing Services should urgently appoint a programmer dedicated to solely supporting the Ministry of Education and Training on EMIS functions.

- The Central Statistical Office should urgently transfer the appointed survey statistician, who has been seconded to the Ministry of Education, to the Ministry's EMIS office.
- Distinction should be made between conferences and technical workshops. Approval for the technical workshops should be within the Ministry.

#### **NORM 9: Cost Effectiveness**

#### (a) Utilization of Resources

Monitoring of the EMIS resource allocations and expenditures is very weak. The EMIS Budget is showing zero expenditure, despite money having been spent on EMIS activities. Additionally, the unit does not receive monthly expenditure reports.

#### (b) Technology

The EMIS unit has applied for a project that will update the annual census for general education electronically, which implies getting rid of the paper questionnaires. This will be launched on a GIS platform and, if approved, will be an innovation. Currently, EMIS is centralised with all staff members at Head Office despite the fact that the Ministry placed EMIS IT equipment in the regional offices.

#### (c) Human Resource Management

Sometimes EMIS officials are used for IT support within the Ministry because of the IT-driven nature of EMIS. However, their work is largely dedicated to EMIS activities. It was noted that the EMIS Manager at times serves as an MOET Parliamentary Secretariat as well as acting as the sole staff involved in monitoring and evaluation (M&E) as well as research.

#### (d) Finance

Resources that the EMIS unit obtains are perceived to be effectively used. The challenge remains with the inadequate allocation. The EMIS unit overspends at times, and is obliged to utilize funds from the Permanent Secretary' vote.

#### **RECOMMENDATIONS**

- The Accounts Officer should supply the EMIS unit with expenditure reports (cash flow reports) on a monthly basis so as to assist in monitoring the expenditure of resources allocated to EMIS.
- The EMIS unit need restructuring so as to create separate units to deal with M&E and Research.

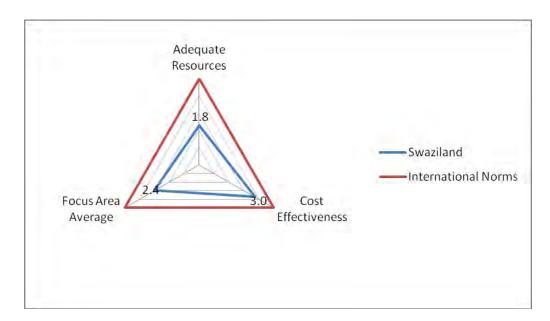


Figure 2: Resources Availability and Utilization

#### C. Statistical Processes

As for the statistical processes involving sound methodology and appropriate statistical procedures (Norm 10) and non-excessive burden on respondents (Norm 11) the performance of EMIS is positive with an average score of 3.2 for both norms, an indication that the unit has produced <u>acceptable statistics</u>.

#### NORM 10: Sound Methodology and Appropriate Statistical Procedures

In general, the methodologies that are applied in the EMIS unit observe the national and international standards. The methodologies are not documented, however, which does not allow information on processes to be shared among the various producers and users of statistics education.

Piloting of the instruments for data collection is ad hoc and is often dependent on the availability of external funding. However, since the new database became operational, the instruments have not been updated for over four years as the process involves modifying the database and there are no programmers or systems analyst in the unit.

One of the methodological procedures to ensure data consistency is the process of verifying the data. This is performed, through routine recording checks embedded in the software which has procedures for verifying data consistency. However this does not confer complete veracity of the data, as institutions are the primary sources of information and they are unaudited and this aspect is the most comprehensive verification step.

One of the important methods in the production of education statistics is the definition of concepts, a methodological procedure for common understanding of the variables and indicators, which contributes to the same understanding of of what is being measured. This definition of concepts, although mostly known by producers of education statistics, it is not properly documented by the EMIS unit and no data dictionary exists.

The EMIS unit obtains a 100% response, from all the schools, to its annual census. This is not the case in the ECCE, TVET and non-formal education sub sectors where coverage by the education census is not comprehensive.

It was noted that scientific procedures for the estimation of missing data and the revision of statistical data for various reasons are not documented. The EMIS unit obtains its population data from the Central Statistics Office (CSO). However, it appears that there is inconsistency in the enrollment rate at 7 years of age. This inconsistency reinforces the need for verification of data, including the population, in collaboration with the Central Statistics Office.

#### RECOMMENDATIONS

- There is need to develop documentation on EMIS proceedings and methodologies of operation, including the definition of concepts, statistical dictionary and the calendar of publications.
- MOET should engage in dialogue with CSO on the inconsistency of the enrolment data with age population data and resolve the differences.

#### **NORM 11: Non Excessive Burden on Respondents**

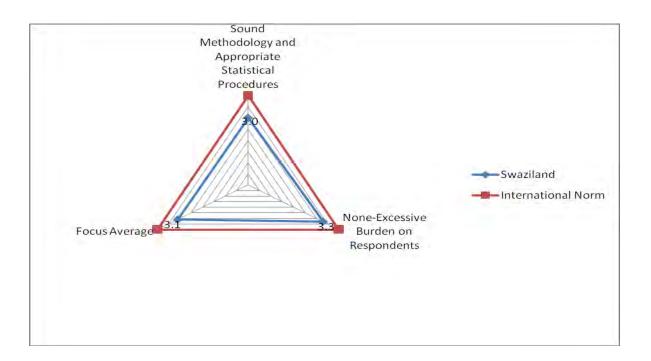
In general, the perception is that there is not an excessive burden on respondents by the EMIS unit. The review noted, however, that a number of other divisions conduct surveys independent of EMIS, which has caused challenges to the Ministry, with schools being inappropriately dealt with and the data collected not scientifically approached. MOET has made a decision that all school surveys must be approved by EMIS before being implemented.

Otherwise schools can be overwhelmed, especially when such questionnaires are too long and complicated, and which also impair the functioning of the school agenda.

#### **RECOMMENDATIONS**

- Ensure that the database is dynamic to meet the growing need for statistical information and produce timely and quality statistics.
- Educational institutions, as primary information sources, should be audited to ensure the consistency of statistical data.
- The estimation of missing statistical data should be done in collaboration with the CSO, for the sharing of good practices in this field.
- The Ministry of Education and Training has to ensure that the production of statistics on education is the responsibility of the unit where EMIS is allocated, to avoid unnecessary overload of information sources and expenditures.

Figure 3: Statistical Processes



# D. Education Information Reporting

In terms of education information reporting, Swaziland achieved a 2.7 score, which indicates an acceptable quality standard. This classification was largely influenced by the scores achieved in all standards under the norms in this section, ranging from 2.6 to 3.3, with the exception of standard 14, which the review situated at 1.8. Thus, the review found the foregoing aspect throughout the assessment.

#### NORM 12: Relevance

Education statistics must meet the needs of users. The potential users of education statistics are known, although there is no pre-set regular meeting schedule to establish their needs and the degree of their satisfaction with the publications of statistical data.

The feedback processes is satisfactory and reaches all levels of the education system. However, this process is not sustainable, due to insufficiency of funds, because it requires a greater volume of publications, including distribution to all users, which is beyond the current budget provisioning.

The production of education statistics is not guided by an EMIS strategic plan. This implies that there is no EMIS vision, in the mid-term, on the goals that must be achieved, although some goals are indicated in the latest MOET Strategic Plan, which includes benchmarking the performance of the system.

The Annual Statistical Publication, aside from being produced at least a year later than data collection, is reasonably comprehensive but lacks key summary information on the system at a glance. Overall numbers on types of institutions by level are missing as well as summary information on teachers and learners. Additionally, although the publications include relevant educational indicators, which is positive because it shows the degree of the education system's performance, these indicators are not accompanied by an analysis and statistical inference, which would facilitate their interpretation. This is necessary in order to help decision makers.

#### RECOMMENDATIONS

- The EMIS unit urgently needs to develop an EMIS strategic plan with a vision of where it wants to be in five years based on the needs of information for planning, monitoring and evaluation of the education system. This will enable the unit to mobilize resources for the development of EMIS.
- The EMIS unit needs to either conduct opinion surveys on user satisfaction with its statistical provision or request another body to undertake the exercise on its behalf.
- Up to date summary information of the education and training system needs to be readily available for external users, either in a brochure or in the annual statistical report.

#### NORM 13: Accuracy and Reliability

An important aspect for the production of education statistics is the existence of a list of all educational institutions, public and private, for all types of such institutions. In this context, it was found that the statistical coverage of schools is satisfactory but EMIS lacks information on professional and vocational technical education, including non-formal education institutions.

Statistical publications would benefit with more analytical regional comparisons of indicators as well as time series analysis of data. Temporal comparisons of statistical data allow, among other things, a view of data consistency and are a method that should be improved because it contributes to the production of quality statistics. Also, it was found that comparisons with other sources of information, especially with the household surveys from CSO, are not made. The review noted, in fact, that a comparison of the proportion of over-aged learners at the primary level in 2012 determined that it is proportionately worse than it was in 2004, something that the Ministry has not tracked because of its analytical limitations.

#### **RECOMMENDATIONS**

- It was noted that the EMIS database lends itself to the collection of learner unit records and, given that the education system in Swaziland is relatively small, it would improve the accuracy of EMIS enormously if MOET, in conjunction with the Ministry of Home Affairs, comes up with a system for allocating unique learner PINs.
- The Ministry should introduce a school record-keeping system to improve the quality of data collected at school level.

#### **NORM 14: Timeliness and Punctuality**

Education statistics must be disseminated in a timely and punctual manner. The Ministry of Education and Training is consistently late in publishing its statistical data, often two years after collection. This is not acceptable as it does not adequately help the Ministry, in addition to other stakeholders, with the planning and budgeting functions. For example, the budgeting function of the Ministry is using 2011 data in planning for 2014. Further, it was found that there is no calendar of publication dates that could serve as a basis for guiding accountability among the producers and users of statistical information to respect the deadlines. Hence, users of statistical information are not properly informed about the reasons for the delay of publications.

#### **RECOMMENDATIONS**

- A calendar of dates of publications on EMIS data needs to be disseminated.
- The Annual Census Report should be published within 9 months of the data being collected.
- The 16<sup>th</sup> Day statistics collection could be a potential source of timely data if it were published and widely disseminated. This is highly recommended.

### NORM 15: Coherence, Consistency, Comparability and Integration

According to the national source and a preliminary assessment by the peers, the statistics are compiled according to international standards. However, the EMIS unit lacks a data dictionary, which would allow a common understanding of definitions, data limitations and interpretations, especially among statisticians and users. Since data is not available electronically prior to 2008, the EMIS unit does not publish time series data. This hinders the ability of the user to assess consistency and comparability of data over time. Seemingly, all education and training statistics are linked directly or indirectly to the EMIS unique number, which facilitates the integration of statistics. However, this remains limited to the statistics collected by MOET.

#### **RECOMMENDATIONS**

- The EMIS unit should recapture the 2004-2008 hard copy data so as to facilitate longer time series of its national education database.
- Obtain a copy of the South African data dictionary, which is available on its Department of Education web site, and customize to Swaziland's requirements

#### NORM 16: Accessibility and Clarity

In general, the tables in the Annual Census Report (ACR) publications allow for easy interpretation of statistical data. However, there is a lack of statistical analysis that would bring greater understanding and thus make the report more accessible to users. Additionally, there are confusing concepts used such as 'male pregnancy", which require further understanding, with no explanation.

The review found that there is no regular publication strategy for the statistical information available. This diminishes the regularity of interaction among statisticians and users.

The Ministry of Education and Training has facilities, in terms of information and communication technologies, that could be used to expand access to statistical data, in particular promoting the use of open source data (or data in Excel) through the Ministry's intranet. Data disseminated through brochures, internet and intranet are also not yet explored, yet this could contribute to reducing the number of information requests from different sectors, and from within the Ministry itself, to the EMIS unit.

The EMIS unit is not yet producing analytical reports on the progress the education system is making in achieving the major goals and objectives of its national Sector Policy (2011), implying that the statistics that are produced are not fully utilized for diagnosis of the education system. Analytical reports are important because they contain suggestions which allow taking timely decisions to improve the development of education. Equally, this evaluation found that there is still no metadata explaining the process of how data was collected, the coverage of institutions, limitations of the data, etc.

#### **RECOMMENDATIONS**

- Ensure that the first pages of the ACR publication present the education system at a glance, listing all the numbers of education and training institutions and profiling them in terms of learners, educators and classrooms.
- Every page should provide a short analysis of the tables presented therein.
- Allow open source data within reasonable limitations (in a manner that does not breach statistical confidentiality) to all internal users within the Ministry by loading the information either on a functioning intranet or or on a closed user access portal.
- Disseminate statistical data, within the Ministry of Education and Training, also through the intranet, taking advantage of the existing potential in the sector, for greater accessibility to statistical data
- Identify the key performance indicators of the national Sector Policy Plan and measure and report on them annually.
- Adhere to international reporting deadlines, particularly those required by SADC and the African Union.

#### **NORM 17: Comprehensiveness**

It was noted that the Annual Census Report (ACR) tends to lack summary tables on total number of education institutions by enrolment, by teacher numbers, qualification and by classrooms. This hinders an overall understanding of the education system at a glance. Further, the ACR does not cover ECCE, TVET, or non-formal institutions. There are also no published statistical booklets available on the higher and tertiary institutions.

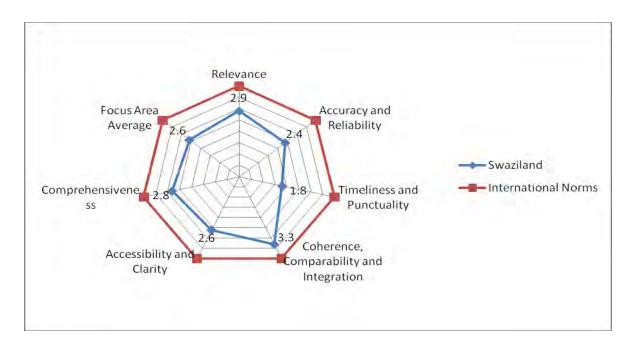
The ACR reports include some indicators of educational quality, but it is recommended more could be added, which would allow for a broader view of the development of the education system. Additionally, it was proposed, among the Peers, that the EMIS unit needs to extract a regional analysis for the benefit of regional education managers so that they better understand how their region is performing, compared to previous years and against the other regions. At the school level, schools need to receive a short synopsis of their statistical profile against a regional and/or national benchmark. The review noted that the current ACR does present school level indicators in its appendix.

In general, the statistics are disaggregated by gender, which facilitates an understanding of disparities and challenges that must be considered for the promotion of gender equity in education. The statistics are also are disaggregated by urban and rural area; the definitions are, however, not clarified and apparently differ from that of the CSO.

#### RECOMMENDATIONS

- The analysis of statistical data needs to be improved by producing analytical reports on the development of education to support the process of making timely decisions, particularly at the regional level.
- Produce statistical brochures or publications profiling ECCE, TVET and higher education institutions.

Figure 4: Education Information Reporting



#### **E.** Conclusion

Overall, the peer review determined that Swaziland's EMIS minimally complies with the SADC EMIS Norms and Standards with a score of 2.7 that recognises that its educational statistics are acceptable. However, it faces key challenges which the Ministry needs to address in terms of its policy and legal framework and its level of resources, which are key enabling conditions for effective EMIS. Lack of adequate allocation of resources for EMIS is impacting on the Ministry of Education and Training's ability to produce comprehensive and timely statistics which undermines its capacity as a reliable statistical producer.

Focus Area A. Policy And Legal Framework	Norm Average Score
Norm 1. Mandate For Data Collection	2
Norm 2: Quality Commitment	2
Norm 3: Statistical Confidentiality	3
Norm 4: Reporting Accountability	2.7
Norm 5: Impartiality And Objectivity	2.1
Norm 6: Registration Of Institutions	3
Norm 7: Registration Of Learners	3
Focus Area Average	2.5

Focus Area B. Resources Availability And Utilization	Norm Average Score
Norm 8: Adequate Resources	1.8
Norm 9: Cost Effectiveness	3
Focus Areas Average	2.4

Focus Area C. Statistical Processes	Norm Average Score
Norm 10: Sound Methodology And Appropriate Statistical Procedures	3
Norm 11: Non-Excessive Burden On Respondents	3.3
Focus Area Average	3.1

Focus Area D. Education Information Reporting	Norm Average Score
Norm 12: Relevance	2.9
Norm 13: Accuracy And Reliability	2.4
Norm 14: Timeliness And Punctuality	1.8
Norm 15: Coherence, Comparability And Integration	3.3
Norm 16: Accessibility And Clarity	2.6
Norm 17: Comprehensiveness	2.8
Focus Area Average	2.6

# **Overall Average of all Standards**

Add each score per standard and divide by 84 (total number of standards)

Overall Average	2.7

#### APPENDIX ONE: THE EMIS NORMS AND STANDARDS ASSESSMENT FRAMEWORK

In these Norms and Standards, the singular term "Ministry of Education" is used synonymously with its plural form "Ministries of Education" to include all those government Ministries responsible for the various levels of education and training in a country. These Norms apply to all levels of education including Early Childhood Education, Primary, Secondary, Tertiary, Non-Formal and Technical and Vocational Education with the recognition that the Ministry managing the Basic Education level has the primary responsibility for co-ordinating education and training statistics for the sector.

# A. Policy and Legal Framework

Policy and legal frameworks governing education statistics have a significant influence on the effectiveness and credibility of a Ministry of Education to produce and disseminate education statistics. The relevant issues are a mandate for data collection from all education institutions and bodies, clarity on roles and responsibilities, registration of pupils and institutions, commitment to quality, reporting accountability, statistical confidentiality, impartiality and objectivity. All education statistical policy frameworks come under the umbrella of national statistical policy.

#### NORM 1. MANDATE FOR DATA COLLECTION FOR THEEDUCATION SECTOR

The Ministry of Education must have a clear legal mandate to collect information from all education and training institutions and bodies, both public and private, for educational statistical purposes

Components		Standards	Assessment level	S				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Legal mandate	1.1.1	Legal mandate to collect information for educational statistical purposes.4	legal instrument on EMIS dealing with the collection of information for production and	There is an EMIS policy to mandate the collection of information for the production and dissemination of education and training statistics.	collection of information for production and dissemination of	policies or documents specifically on EMIS dealing with the collection, production	1	There is no EMIS Law on collection of data under the MOET. The Government and Ministry uses the CSO Act of 1967 in carrying out this activity. Although mention is made of EMIS is in the Ministry's Education Act it is not explicit on the role of the EMIS. EMIS is officially gazetted as a department in 2009 through Legal Notice No. 25 of 2009 and as such it is a legal entity.
	1.1.2	The usage of the legal mandate.	is utilized to cover all sub-sectors sector (including training).	sometimes utilized.	document is rarely utilized	document is not utilized.		The legal mandate could be derived from the CSO Act of 1967 but seldom is. Generally there has been good compliance by schools with Ministry information requests. There may be a need to use law to compel private TVET providers to comply – a new mandate of the Ministry.
	1.1.3	Legislation on the use of administrative	_		Legislation is silent about the use of	There is no legislation in place allowing the	2	The CSO Law grants access. The EMIS has access to Statistical

<sup>&</sup>lt;sup>4</sup> This could be part of any policy document or separate legal document.

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		records for statistical purposes.	use administrative		education statistics but statistical authorities	use of administrative records for education statistics. It is difficult for officials to gain access to such records.		records of public and private institutions.
	1.1.4	education	to such requests has consequences	Failure to respond to such requests does not always have consequences for education institution.		There are no consequences for non compliance.	2	Failure to respond does have consequences, under the CSO Act of 1967. However due to positive responses thus far there has been no need to apply full might of the Law. Additionally the Teaching Service Commission Act (TSC) (1980) requires all teachers to respond to MOET requests but is not explicit on EMIS. Using TSC to ensure compliance may be time consuming and expensive if the need to apply to use it arose.
Mandate t coordinate EMIS processes	o 1.2.1	from the different sub-sectors and	Education has the mandate to collect and integrate data from the different sub-sectors and various government ministries and agencies of education and training, some institutions and relevant structures of other departments, ministries and civil society.		Education has the mandate to collect and integrate data from some of the different sub-sectors of the	and various	2	Private Education institutions currently registered under the Ministry of Commerce are often reluctant to comply with MOET requirements and avoid registration and hence fall out of the census process. Private non formal education institutions, TVET and ECCED centres often fall into this category. However the MOET obtains statistics from Ministry of Commerce on education institutions and scholarship data from Public Service.
	1.2.2	Strategy to collect and integrate data.	strategy to process data across other sub-sectors within the Ministry and	The Ministry of Education has a strategy to process data across the subsectors within the Ministry of Education only. 9	Education has a strategy for some subsectors involved in	Education has no	2.5	Strategy exists but when it comes to some sub-sectors such as TVET it is still inadequate. This is due to the fact that the MOET recently inherited the "Training" component and has not done much in terms of the NQF. Even mapping the TVET and Training to the ISCED is delayed by the

 $<sup>^{5}</sup>$  Institution heads are charged, disciplinary action or a school is deregistered.

 $<sup>^{6}</sup>$  Institutions view the process as voluntary and response rates are low as there are no consequences for non compliance.

 $<sup>^{7}\,\</sup>mbox{This}$  could be part of any policy document or separate legal document.

1.2.3	of Education subsectors and government agencies.	measures are in place to ensure that there is information and open source data sharing across subsectors and across government agencies that is explicitly known by users. <sup>10</sup>	in place to ensure that there is information sharing and flow of open source data among sub-sectors and other government agencies but it is ad hoc.	place but there is ad hoc information sharing across sub-sectors and government agencies and there is no access to open source data on the web site.	there is information sharing across subsectors and government agencies and access to open source data is restricted		absence of an National Qualifications Framework. Additionally there is no formal documentation on a strategy.  EMIS distributes its annual statistical reports very widely in hard copy and on its web site as PDF files but the statistics are not available as open source data which allow users to manipulate source information for their needs.
1.2.4	information sharing across Ministry sub-	of information	acceptable delays of less than six months) across Ministry sub-sectors	information across Ministry sub-sectors and government agencies. Information sharing is often	and government	2	EMIS shares its data regularly with key players in education; this includes other Government departments and agencies such as UNICEF, EU and UNESCO. However delays still exist because of capacity issues within the unit.
1.2.5	Understanding (MoU) between Ministry of Education and the	between the Ministry of Education with the national statistical office (Statistical authority) on all information related	There is a formal agreement between statistical authority and Ministry which recognizes the	relationship with CSO, the Ministry of Education and statistical authority collaboration is not	collaboration and	2	There is no MOU but a good relationship of collaboration. All publications go through the CSO before being made public. The EMIS is part of the National Statistical Strategy and is looking forward to working under that body. The body is still being institutionalized by Government.
1.2.6	structures and roles of the Ministry of	The Ministry has clearly spelt out the roles and responsibilities of education institutions and structures in the collection, compilation, distribution and	There is a general understanding of the roles and	The roles of the Ministry and education Institutions are not clearly specified. There are no guidelines in		3	EMIS has a manual guiding education institutions on their roles and responsibilities

<sup>&</sup>lt;sup>9</sup> Unlike Quality Level 4 there is no clarity on which Ministry has overall mandate but Ministries involved in Education collect data for their sub-sector.

<sup>&</sup>lt;sup>8</sup> The EMIS is integrated with administrative records in finance and personnel a mong others. One Ministry needs to be identified as the responsible party as in some instances more than one Ministry may be involved in education and training.

<sup>&</sup>lt;sup>10</sup> Information sharing should be systematic and move across sub-sectors, various directories (HR, Finance), flow right back to the schools as well as information sharing with other Ministries, agencies and departments.

<sup>&</sup>lt;sup>11</sup> The MoU can be with the Central Statistics Office

	educational	educational	organization is	
	information with	information with	responsible for which	
	users. These exist	users. These exist	activity which often	
	as administrative	as administrative	leads to duplication of	
	guidelines and are	guidelines and are	efforts and/or the	
	widely used in	=	neglect of essential	
	practice.	practice.	steps.	
NORM AVERAGE				2.0

#### NORM 2: QUALITY COMMITMENT

The Ministry of Education commits itself to work and cooperate according to the norms fixed in the quality declaration of its national statistical systems and in other international statistical frameworks.

Components		Standards	Assessment level	S				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Policy and Procedures to ensure quality statistics.	2.1.1	Policy and procedures to ensure quality.	specify processes Ministry of Education will use to promote and ensure quality in the statistical value chain taking into	documented framework specifying processes the Ministry uses to promote and ensure quality in statistical value chain that are linked to international quality	not explicitly linked to national and international quality	to guide the Ministry on	2	EMIS has been assessed thrice by the UIS DQAF assessments which ensure that to some extent the national statistic conform to international criteria but there is no formal framework or EMIS master plan for improving education statistics
	2.1.2	Processes to monitor and ensure data quality.	place to monitor and ensure the quality of the data collection, processing, and dissemination of statistics. These	to monitor and ensure the quality of data. The processes include random information verification and validation. These processes are adhered to most of	There are no processes to monitor and ensure the quality of data at various stages. Though random checks might be made.	process to monitor quality. There is minimal verification and	2	Some verification and validation processes are in place for data collection, processing and dissemination. However, the Ministry has not made resources available for comprehensive validation and verification, as this is done adhoc through occasional visits to institutions by the EMIS unit.
NORM AVERAGE							2	

 $<sup>^{12} \</sup> Results \ are \ compared \ to \ those \ from \ other \ surveys \ and \ there \ are \ checks \ to \ ensure \ statistical \ data \ is \ consistent \ over \ time.$ 

#### NORM 3: STATISTICAL CONFIDENTIALITY

The Ministry of Education guarantees the privacy of data providers' individuality, the confidentiality of the information they provide and its use for statistical purposes only.

Components		Standards	Assessment level	S				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Statistical Confidentiality	3.1.1	Policy outlining measures to safeguard individual data confidentiality and usage.	confidentiality is well stated in the policy document and implemented once every 12 months.  Measures 13 are in place to ensure that individual data are kept confidential and used for statistical	confidentiality is well stated in the policy document but seldom implemented. Checks are in place to ensure only aggregated data	the policy document on data confidentiality. There are limited checks established and compliance is ad hoc.	confidentiality is not mentioned anywhere in	3	Although not stated confidentiality is highly regarded. Although the system is such that individual students can be identified at Primary and Secondary levels it is never done.
NODM AVEDACE	3.1.2	Protocols for external users accessing data and usage.	purposes only. 14  Necessary protocols apply all the time to external users accessing statistical data.	apply to external users accessing statistical data.	accessing statistical data. Though some efforts are made to	made to safeguard the confidentiality of individual data and there are no protocols in		No statistics are allowed to leave the Ministry without the authorized permission of the Permanent Secretary however it is on an ad hoc request basis. There is no formal system of protocols.
NORM AVERAGE							3	

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<sup>&</sup>lt;sup>14</sup> Among these measures should be clear procedures on how to archive records, a policy on how long records are kept and a strategy to safely dispose or destroy the records.

#### **NORM 4: REPORTING ACCOUNTABILITY**

The Ministry of Education adheres to a policy of timely and accurate reporting to the statistical information requirements of national, regional, continental and international education frameworks.

Components		Standards	Assessment level	S				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Statistical reports	4.1.1	Production of statistical reports.	education and training institutions are produced and disseminated widely within 12 months of data	reports are produced regularly and published. However, the reports are delayed in dissemination beyond 12 months of	Annual statistical reports are produced but not published.	•		The annual statistical reports are produced more than 12 months after data collection. This is often as a result of poor
	4.1.2	Obligation to report education performance annually.	on all information		is indicated in the plan	. The Ministry does not have an obligation to produce analytical reports on education performance.	3	resourcing levels.  The EMIS is expected to report to Parliament by Law through quarterly reports. However such a law has never been implemented,
Report of education statistics to international organizations	4.2.1	Responsiveness of a country to international reporting requirements.	The country supplies complete education statistics	international organizations include most of the required	Country reports are characterized by large data gaps and delays; sometimes reports are not submitted. 15	The country does not supply the required information to	2	Swaziland lacks ECCD, TVET and Tertiary data. Swaziland is reporting irregularly to SADC on regional and continental indicators.
NORM AVERAGE	<u>'</u>		•				2.7	

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 $<sup>^{15}</sup>$  As evidenced by the huge data gaps in publications such as Global Education Digest, AU Reports and SADC Report

#### NORM 5: IMPARTIALITY AND OBJECTIVITY

The Ministry of Education must produce and disseminate education statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

Components		Standards	Assessment level	S				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Impartiality and objectivity.	5.1.1	The compilation of education statistics is based on scientific and statistical considerations only.	Statistics are compiled on a scientific basis determined by statistical considerations only.	based on statistical consideration but there is a minimal	statistics is largely based on statistical consideration but there is considerable degree	statistics is largely influenced by other external forces and disregards statistical	3	The MOET has internal capacity but largely relies on CSO as it does not have a statistician
	5.1.2	Corrections of errors are published.	published statistics are corrected at the	published statistics are corrected within	published statistics are corrected but the corrections are rarely	Errors in statistics are	2	Most times corrections are made on the publications if discovered early enough but this seldom publicized
	5.1.3	Data revisions and/or updates are publicized <sup>16</sup> .	Revisions of data and/or updates of information are always publicized.	and/or updates of	•	and/or the update of information is not	2	In some instances
	5.1.4	procedures for statistical production	3	methods and procedures used by		and procedures used by the Ministry is not available to the public.	2	Procedures are available but are most often than not released to anyone but to those that are stakeholders and request for them.
	5.1.5	The release of statistics is made in an impartial and objective manner.	All statistical releases and			Statistical releases and statements made in the media tend to be biased and partisan.	3	However, this is not an event that happens regularly. When the need arises the MOET releases objective statistics.

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<sup>&</sup>lt;sup>16</sup> Publicize means to bring to the public's attention – make something known – this can be done using various forms of media such an advert in the newspaper or use of bulletin boards.

5.1.6	Staff is aware of	There are	Professional and	There are no systems	There are no systems in		Staff are aware that data and
	professional and	guidelines in place		3	place to guide staff on		statistics are only released by
	ethical conduct.		_		acceptable ethical and		the EMIS Manager. A code of
		professional	or/and are not	-	professional conduct.		ethics exists but no document
		<u> </u>	adequately imparted	•	Staff is involved in		exists on accepted norms.
		ethical behavior by			irregular practices.	2	'
		staff. A clear		implied in irregular		2	
		strategy <sup>17</sup> to		practices.			
		ensure staff is		•			
		conscious of					
		acceptable conduct					
		is in place.					
5.1.7	Conditions under	Conditions under	Policy makers have	Policy makers have	There are no policy		There is no policy. Data is only
	which policy makers	which policy-	access to the data.	uncontrolled access to	measures preventing		released after publication.
	can access data	makers, specifically	The conditions, along		policy makers' access to		Access is through the EMIS unit
		, ,	with the reasons for	•	data before its release		and as such data and
			their access, are	reasons for their	and publication.	1	information cannot be released
	dissemination policy.			access, are not			without the EMIS' green light.
		are published and	adhered to.	published.			This is after it has been
		is available for					reviewed by CSO.
		public scrutiny.					
NORM AVERAGE						2.1	

#### NORM 6: REGISTRATION OF INSTITUTIONS

All education and training institutions must be compelled to register with appropriate education Ministries if they are to operate as an education and training institution.

Components		Standards	Assessment level	ssessment levels						
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments		
			Statistics	Statistics	Statistics					
			Level 4	Level 3	Level 2	Level 1				
Registration of Institutions.	6.1.1	education institutions are registered with	education institutions are registered with a unique number by	more than 80% of education institutions are registered with a	more than 50% of education institutions are registered with a	Less than 50% of public and private education institutions are registered by Ministries of Education and have a unique number.	2	The TVET and ECCE sector lack unique numbers but these sectors have problems of organization and coordination which are more administrative and policy related than being EMIS related.		

<sup>&</sup>lt;sup>17</sup> Such a strategy may include induction and orientation of new staff, circulating professional guidelines and codes or constantly training staff on managing professional and ethical questions that may arise.

6.1.2	Education have an up to date directory of all education and	has a complete directory of all education and training institutions (public and private)	education Ministry has a directory of institutions and a procedure for updating exists but it is not implemented annually and the list	has directinstitutions by updated annotis no produpdates.	ctory of out it is not oually. There	On the organized formal school sub-sector, i.e. general education, the list is comprehensive. Problems arise with the non-organized subsectors such as ECCD and TVET. This is an area where the SADC Secretariat can help policy levels to understand the role of the National Register and EMIS as in Swaziland it might be politicized. EMIS should serve as secretariat so as to have an up to date profile, through getting information from Director of
NORM AVERAGE					3	Education.

# NORM 7: REGISTRATION OF LEARNERS

All learners are required to present their birth certificate/records in any given year at any education and training institution.

Components		Standards	Assessment levels					
			Quality Statistics	-	Questionable	Poor Statistics	Score	Comments
				Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Availability	7.1.1	All education	The Ministry reports	The Ministry reports		The Ministry does not		There is a good birth registration
of learner				partially on the age		report age by grade		system although it does not
data by age				of learners for some		education statistics for		produce a unique pin for each
			by grade education			any education		learner. This is necessary for the
			statistics for all	institutions.		institutions.		introduction of learner unit
			institutions. 18					records. The formal school
		documentation						system therefore can report age
							3	by grade information. For the
								other sectors such as TVET and
								Tertiary report is by age groups
								largely because such institutions
								do not use such data. This is an
								issue that will be sorted out by
								an NQF and organization of
								these such sectors.

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 $<sup>^{\</sup>rm 18}$  Enrolment by age is collected and published.

7.1.2	appropriate consultation with the Ministry	certificates/records on entry to education institutions.		Very few learners are able to present their birth certificates/records to education institutions.	3	Most births are registered in Swaziland and children are required to present their birth certificates when they enroll in Grade 1
NORM AVERAGE					3	

# **B.** Resources Availability and Utilization

Adequate resources and their effective use in managing an education management information system has a major impact on the quality of education statistics.

#### **NORM 8: ADEQUATE RESOURCES**

The Ministry of Education ensures that resources are commensurate with the statistical programmes, personnel, facilities, equipment, technology, training and financing of their education management information systems.

Components		Standards	Assessment lev	rels				
			Quality Statistics	Acceptable Statistics	Questionable Statistics	Poor Statistics	Score	Comments
			Level 4	Level 3	Level 2	Level 1		
Finance 8	3.1.1	Allocation of an appropriate budget for EMIS.	Education allocates a ring-fenced <sup>19</sup> adequate percentage of its national education budget for the	Education allocation of its national education budget for the production of education statistics is sufficient to cover most of the EMIS census and is	The EMIS unit receives less than 60% of requested budget.	There is no specific amount allocated for EMIS purposes. The funding for various activities is on an adhoc basis or sustained by external funding.	2	The budget is not enough and resources are not adequate. One of the major reasons why EMIS census is late is lack of budget. EMIS has no vehicle for follow-ups and verification, no budget for fuel, and temporary HR to fast track statistics. Verification was done in 2011 is a few schools <5%  There is no recognition of the need for a flexible budget that would allow EMIS to employ temporary staff during key labour intensive periods.

 $<sup>^{\</sup>rm 19}$  s ecured funding that cannot be moved to other budget lines

Dorsonnol	Ω12	Thoro are sufficient	Thoro are sufficient	Over 80% of the key	Morothan 60% of EMIC	Loss than 60% of EMIS		IT still a problem high turnever
Personnel	8.1.2		qualified personnel in all key EMIS positions; with the minimum number comprising of an	EMIS positions are staffed with qualified personnel. At a minimum there is a statistician and programmer and EMIS specialist.	posts are staffed by qualified personnel with at least on of whom is a statistician.	-		IT still a problem high turnover, and capacity does not exists even with the Government Computer department. EMIS Relies on consultants outside the public sector for application development. Even the current EMIS for General Education was developed by ADEA for Education Management and Policy Support. It was not adequately budgeted for locally. All senior officers perform a variety of tasks because the HR is not adequate. On the whole only one officer has the relevant qualification. EMIS Manager did statistics at senior level and is an Research and Analyst expert who mastered in educational statistics. Statistics post exists but currently vacant not been filled due to current economic situation of the country. However MOET expecting to fill some of the IT and Stats posts this year after the "Skills Audit exercise by the Ministry of Public
	8.1.3	The existence and	The Ministry	There is a plan and	There is a plan in place	There are neither		Service.  EMIS at times appears as if it is
	3.1.0	implementation of professional development strategy <sup>20</sup> in place for EMIS staff.	promotes and implements regular professional development and	strategy in place and there is training taking place but seldom reaches beyond the national level.	but there is no training taking place.		2	not a priority in as far as development is concerned. EMIS is supported by agencies such as UNESCO and Government has not shown tangible commitment to professional development. However the recent National Education and Training Improvement Plan has an EMIS component in that it is benchmarking the plan's performance statistically.

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<sup>&</sup>lt;sup>20</sup> Internal and external training programs which include computer programming updates, database management skills, survey administration, planning and budgeting skills, analytical report writing, etc.

		trained to manipulate and analyze their local databases. <sup>21</sup>				However it is not explicitly aimed at EMIS capacity building.  EMIS also offers "Dashboard" and "Policy Brief" which are used as training modules on data usage on its webpage.
8.1.4	in place to retain scarce specialist skills.	in place to attract and retain specialist staff in areas of	strategy in place to retain scarce specialist skills. Staffs are on the normal salary	There is no strategy in place to attract and retain specialist skills.		There is no strategy to attract and retain scarce staff. The post levels and their corresponding salary levels are too low for the burden and scope of work required. One of the major causes for delays is that the EMIS staff is under compensated. Earlier this year there was about 5 weeks of disturbances because staff in the data processing unit were not happy with their salaries. They decided to "work to rule" All EMIS posts were undervalued as such might find it hard to sustain the current quality in the future.
8.1.5	international networks of EMIS experts.	annually participate in		EMIS staff seldom attend conferences on EMIS related topics. <sup>22</sup>	1	EMIS personnel seldom participate in regional (SADC) and international (AU, UIS, SACMEQ etc) conferences and workshops

 $<sup>^{21}</sup>$  Professional development initiatives are across all sub-sectors.

 $<sup>^{\</sup>rm 22}$  Tendency for participation to be assigned to inappropriate person.

Equipment	8.1.6	Adequate	EMIS unit has	Only a few key EMIS	EMIS	unit has		
		information	access to quality IT	staff has access to	inadequ	uate access to		
		technology (IT)	equipment, with	information	quality	IT equipment		Current equipment levels are
		equipment and	modern	technology and	and too	ols.		satisfactory thanks to the EU
		communication	communication tools	communication			2	Project. However doubts that
		tools and other	of adequate	equipment that has			3	when the need to update arrives
		necessities.	processing and	sufficient processing				Government might not support
			storage capacity at	and storage capacity.				additional resources allocation.
			all administrative					
			tiers <sup>24</sup> .					
NORM AVERA	AGE						1.8	

#### **NORM 9: COST EFFECTIVENESS**

# Resources must be effectively used.

Components		Standards	Assessment levels					
			Quality Statistics	Acceptable	Questionable	Poor Statistics	Score	Comments
				Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Utilization of	9.1.1	Monitoring of	There are internal	Mechanisms are in	Control mechanisms	No mechanisms are		
Resources.		resource	and external	place to monitor	are weak and poorly	used.		The EMIS budget reflects zero
		utilization	mechanisms in place		adhered to.		2	expenditure in 2013 despite
			to monitor the use of	resource utilization.			_	spending on its budget. The unit
			EMIS resources <sup>25</sup> .					does not receive monthly
								expenditure reports.
Technology	9.2.1	Utilization of	Information and		3	ICTs are not used		EMIS has applied for a project
		technology.	Communications	essential operations	limited to data	productively.		that will update the annual
			Technologies (ICTs)	in the statistical	capturing and data			census for general education
			are optimized for	value chain. Their	processing.		2	electronically, getting rid of the
			essential operations	usage enhances			3	paper questionnaires. This was
			in implementing the	productivity.				launched on a GIS platform, if
			statistical value					approved this will be an
			chain. <sup>26</sup>					innovation.

<sup>&</sup>lt;sup>23</sup> Internet, Wide Area Network and Local Area Network. Access to such ICT facilities should not only be at Head Offices but even at Provincial and District Offices

 $<sup>^{\</sup>rm 24}$  Head Office, Region, Provinces and Districts.

<sup>&</sup>lt;sup>25</sup> (e.g. Performance Assessments Frameworks, Audits)

<sup>&</sup>lt;sup>26</sup> Some processes are automated. The productivity potential of ICT is being optimized for data collection, processing and dissemination. Active use of website, CD's, E-mails etc.

Funds used specifically for EMIS activities and functions. Resources allocated to EMIS but the absorption capacity is limited.  to other programmes.  to other programmes.  to other programmes.  4  effectively used. The programmes that they are not enough does overspend at time.	Human Resources Management	9.3.1	Management of human resources	business in line with	EMIS staff work on many other activities outside of EMIS, particularly in the areas of IT support troubleshooting and exams.	There are no dedicated EMIS personnel.	2.8	Sometimes used as IT support within the Ministry, because of the nature of the EMIS which is IT driven. However they are dedicated to the EMIS. Manager at times serves as a MOET Parliamentary Secretariat (which is not in the mandate). This is due to a skill in the current incumbent
NORM AVERAGE 6ffectively used. 3				used specifically for EMIS activities and functions. Resources received are	allocated to EMIS but the absorption		4	Resources that EMIS gets are effectively used. The problem is that they are not enough. EMIS does overspend at times, and utilize funds from the PS' vote.

#### **C. Statistical Processes**

SADC's Protocol on Education and other international standards, guidelines and good practices must be fully observed in the process used by Ministries to organise, collect, process and disseminate official statistics. The credibility of the statistics is enhanced by a reputation for good management and efficiency on statistical production processes. The relevant aspects are sound methodology, appropriate statistical procedures, definitions and classifications of internationally acceptable practices and non-excessive burden on respondents.

#### NORM 10: SOUND METHODOLOGY AND APPROPRIATE STATISTICAL PROCEDURES

Sound methodology must underpin quality statistics. This requires appropriate statistical procedures throughout the entire statistical value chain.

Components		Standard	5	Assessment I	evels					
				Quality Statis	tics	Acceptable Statistics	Questionable Statistics	Poor Statistics	Score	Comments
				Level 4		Level 3	Level 2	Level 1		
Data collection, processing, publication and dissemination methodology	10.1.1	internationa	al standards	which includes a collection processing methodology; monitoring of	the chain; terms are a for and	areas of the statistical value chain are in place but not documented.	Standard methodology to some areas of the statistical value chain are in place but not documented.	follow acceptions acception acceptio	3	There is no documentation

	10.1.2	Piloting and testing	Data collection instruments are piloted prior to administering them. Data entry and database structures are piloted and tested.		changes are seldom	Piloting and testing is not practiced.	4	This happens when there is a review. As the MOET relies on external consultants for development, instruments and systems are normally tested when a review has been planned for. There is no Ministry budget to allow for annual reviews.
	10.1.3	Verification processes	Data verification processes in place include the following:	Data verification processes are built into the statistical value chain but there	processes is done		3.5	This done during data cleaning, by using both manual and inbuilt systems. Indicators are compared with previous year's data. But there is need to undertake an audit to check quality of source data provided. This is currently being limited by lack of resources.
Specialized survey methodology	10.2.1	Survey designs	Survey designs, sample selections and weights follow standard methodology and are properly documented.	sample selections are used but there is no proper	Survey designs, sample selections are occasionally used but there is no documentation.	· •	3	No documentation
	10.2.2	standard concepts and terms are available'	Procedures are in place to ensure that standard concepts,	classifications and definitions are mostly documented and	classifications and	concepts and definitions exist.	2	Documentation does not exist and there is limited explanation of definitions and concepts in the annual publication
	10.2.3	_	data collection instrument for each	data collection instrument for most subsectors (at least	There is a standard data collection instrument only for some subsectors (less then 4 sub-sectors)	collection instruments are used.	3	Instruments are available and are also on the EMIS webpage www.gov.sz or www.emisswaziland.org however they need to be downloaded and filled. The nonformal sector is still with a parastatal which EMIS has created links with. Currently there is no data instrument for NFE

standards and well established and transparent procedures.  10.3.4 Source of population statistics <sup>29</sup> The latest survey or census population estimates and projections obtained from the Statistical authority (CSO/NSO) are used to calculate education indicators.  The latest population age breakdown, sometimes obtained from statistical authority (CSO/NSO) and other times from international sources outside of Statistical authority.  Statistical authority.  The latest population estimates are obtained from unauthorized sources.  The CSO has made projections estimates are obtained from unauthorized sources.  The CSO has made projections obtained sometimes obtained from statistical authority (CSO/NSO) and other times from international sources outside of Statistical authority.  Statistical authority.  The latest population estimates are obtained from unauthorized sources.  The CSO has made projections obtained sources.  The CSO has made projections of the post are obtained from unauthorized sources.  Sometimes obtained from statistical authority (CSO/NSO) and other times from international sources outside of Statistical authority.  Source of population estimates are obtained from unauthorized sources.  The CSO has made projections of the post are obtained from unauthorized sources.  Sometimes obtained from statistical authority (CSO/NSO) and other times from international sources outside of Statistical authority.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are obtained from unauthorized sources.  Source of population estimates are ob	Record Systems	10.3.1	Compatibility of institutional records  Imputation of missing data	institutional records <sup>28</sup> compatible with the information needs of the Education Census.  Appropriate automated editing and scientific imputation systems are used and regularly reviewed, revised or updated as required.	standardized but often not compatible with the information needs of the annual education census instrument.  Scientific manual	are used to calculate	standardized and not compatible with the Annual Education Census.  There is little effort to calculate the missing data.	2.5	Standardized systems are available for most sub sectors except Tertiary which is not compatible with UIS  This is seldom done as EMIS seldom faces missing data issues in the sub sectors for which it is collecting data. Currently there is no known practice.
statistics <sup>29</sup> census population estimates and projections obtained from the Statistical authority (CSO/NSO) are used to calculate education indicators.  figures and institution age breakdown, sometimes obtained from Statistical authority (CSO/NSO) and other times from international sources outside of Statistical authority.  figures and institution age breakdown, sometimes obtained from unauthorized sources.  from years 2007 to 2016 ensures a stable set of detention the next few years. However EMIS note age estimate seem to distorted as enrue sometimes exceeds popularion in authority.  3  from years 2007 to 2016 ensures a stable set of detention the next few years. However EMIS note age estimate seem to distorted as enrue sometimes exceeds popularion in 2011. It is assistant that there may be an estimate of the impact of the impa		10.3.3	Data Revisions	established and transparent			standards, sets of guidelines or		Revisions were made but not publicized.
			Source of population statistics <sup>29</sup>	census population estimates and projections obtained from the Statistical authority (CSO/NSO) are used to calculate		figures and institution age breakdown, sometimes obtained from Statistical authority (CSO/NSO) and other times from international sources outside of Statistical	are obtained from unauthorized sources.	3	sometimes exceeds population numbers in certain age groups. There was an unexpectedly large intake of enrolment with the introduction of free primary education in 2011. It is assumed that there may be an over estimate of the impact of HIV Aids on population growth estimations which may need to

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 $<sup>^{27}\,</sup>S tandard is edin\,terms\,\,of\,uniform ity\,and\,quality; there\,\,has\,to\,\,be\,a\,glossary\,of\,standard\,concepts.$ 

 $<sup>^{28} \, \</sup>text{Includes all institutions-schools, colleges, universities, etc.}$ 

 $<sup>^{29}</sup>$  This is to make sure that there is one source of population statistics –Central Statistics Office.

## NORM 11: NON-EXCESSIVE BURDEN ON RESPONDENTS

The reporting burden should be proportionate to the needs of the users and should not be excessive for respondents. The Ministry of Education monitors the response burden and set targets for its reduction over time.

Components		Standards	Assessment levels					
			Quality Statistics	Acceptable Statistics	Questionable Statistics	Poor Statistics	Score	Comments
			Level 4	Level 3	Level 2	Level 1		
Essential minimum	11.1.1	Core information needs.	The range and detail of education statistics demands is limited to what is essential.			Education statistical surveys are overloaded with detail or do not address the minimum needs of users.	3.5	Too much data is being collected that is not been used by users.
	11.1.2	The burden of response.	The burden of responding to questionnaires is spread as widely as possible over survey populations through appropriate sampling techniques in instances where a census of education institutions is not being undertaken.	definant by doors.		No sampling is done other than census.	4	
	11.1.3	Sources of data.	Administrative sources <sup>30</sup> and secondary data are used whenever possible to avoid duplicating requests for information.	Secondary data and administrative records are sometimes used.		No secondary or administrative records are used.	3.5	It is sometimes used.
	11.1.4	Collaboration on education surveys.	The Ministry's EMIS unit is the coordinating and registering body of internal education surveys in		monitors educational surveys.	EMIS does not monitor other education surveys except education surveys by the Ministry.	2	The understanding is there, however there is a tendency by some sectors to avoid informing the EMIS when there are funds that are available. A good example is the SADC CSTL project where the project did its own surveys and reporting even to the SADC without the EMIS endorsing the statistics. However when project was

<sup>&</sup>lt;sup>30</sup> Includes EMIS data

NORM AVERAGE endorsement in the first plant in the
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# D. Education Information Reporting

Published and disseminated education statistics must meet users' needs. Education statistics need to comply with international quality standards and serve the need of African institutions, governments, research institutions, business concerns and the public generally. The important issues concern the extent to which the statistics are relevant, accurate and reliable, timely, coherent, comprehensive, comparable, over time, across regions and countries and readily accessible by users.

#### **NORM 12: RELEVANCE**

Education statistics must meet the needs of users.

Components		Standards	Assessment levels					
			Quality Statistics	Acceptable	Questionable	Poor Statistics	Score	Comments
				Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
User needs	12.1.1	Identification of	Key users <sup>31</sup> of data	Key users have	Attempts have been	No attempt has been		There is an informal list of all
		user needs.	have been identified	been identified with	made to create a user	made to create a user		contacts
			with their most	some of the contact	list. Some user data	list.		
			recent contact	details but it is not	and their contacts are		3.5	
			details.	up to date. The list	known, but no proper		3.5	
					list exists. The list is			
				years old. It is not	not complete or			
					regularly updated.			
	12.1.2					No consultations or		There are no standard
				-	but consultations are	l :		processes in place. Last time
			consult users on	sometimes not	on an ad hoc basis.	needs in place.		the ASC was reviewed with
			their needs, monitor	consulted. There are	There are no			users was 4 years ago. However
			the relevance and	institutional	institutional processes		2.5	there was wide consultation on
			practical utility of	processes in place	in place.			the ECCE information needs.
				but consultation				Currently the MOET's finance
			meeting their needs,	happens in 80% of				and budgeting unit is using
			and advise on their	the time.				2011 data for planning the 2014

 $<sup>^{31} \ \</sup>text{Key users are civil society, development partners, researchers; senior policy makers, government and teachers.}$ 

<sup>&</sup>lt;sup>32</sup> Includes a responding to priorities in a register of user requests, a memorandum of understanding between users and producers, annual user satisfaction surveys on publications; annual engagement with key stakeholders in the refining census questionnaires – at least two should be in place to score quality statistics.

User and producer feedback	12.2.1	Feedback reports.	back to all institutions and different administrative levels for feedback and to	administrative levels for feedback. There	reports are sent to some institutions and some administrative levels. There is little or		3	budget. However it was noted by numerous users that relevance of the statistics have improved enormously in the past four years.  The Annual Census report is sent to all schools with individual school data. However there is seldom feedback requested. This will need financial support to be sustained. However the use of the website will help achieve something.
Feedback collection	12.3.1	3	There is a user satisfaction survey or other formal arrangements are conducted annually to collect feedback			There are no user satisfaction surveys and no arrangements in place.	3	EMIS reports that there have been complaints about the quality of the reports among some users but the majority are happy. There are great concerns on the delays in releasing the data, and in some cases incompleteness of the TVET and ECCE sectors.
Appropriaten ess of EMIS strategies	12.4.1	EMIS Strategic Plan	place that covers all	plan exists but only	Ministry plans that		2	There is no EMIS Strategic Plan However there is a new National Strategic Plan for the Ministry, the National Education and Training Improvement Plan (NETIP) which implies the EMIS Plan. In fact the NETIP stresses the M&E process such that it is critical that the current EMIS HR and Financial resources are upgraded.

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<sup>&</sup>lt;sup>33</sup> Availability of dissemination, briefing, distribution of outputs etc.

 $<sup>^{\</sup>rm 34}$  Refers to institutions, different administrative levels and other line Ministries.

<sup>&</sup>lt;sup>35</sup> Exisistence of a documented strategy.

Annual Statistical publications	tracked to measure performance of the entire education system. International and regional comparisons of	indicators in annual statistical publications largely measures certain levels of the education system. Occasionally	indicators to measure the performance of education. The	comparisons with internationally	3	Most indicators are in the annual reports, in particular the EFA indicators. However many of the SADC/AU remain missing. Some indicators have been strategically omitted. E.g. in 2011 the GER/NER for senior secondary were omitted in report. Comparisons were made on public expenditure on education with other countries
Data utilization  12.5.1  Key data users are trained to use data effectively.	Annual training programmes take	Few training	Ad-hoc arrangement for participation in other training programmes.	No training is held.	3.5	There is annual training that is limited by the budget. However, in 2011 very intensive training was done supported by the EU. Neither current budget nor resources such as transport and accommodations are available to sustain the process. A few are held through support from agencies such as UNICEF, but these do not cover all sub sectors.
NORM AVERAGE					2.9	

## **NORM 13: ACCURACY AND RELIABILITY**

Education statistics must accurately and reliably portray reality. The accuracy of the statistical information is the degree to which the output correctly describes the phenomenon it was designed to measure.

		sessment levels							
	•	Acceptable Questionable Pool Statistics Statistics		Poor Statistics	Score	Comments			
	Level 4	Level 3	Level 2	Level 1					
chool <sup>36</sup> census.	master-list which is used to determine the size of the target population. All private and public	list of public schools which has been updated within the year. The list of private schools is less reliable as updating is more	incomplete national list of public and	irregularly on an ad hoc basis.	3	The list of schools is updated by requests by private schools for registration through the Permanent Secretary. Public schools use the same channel. It is system that relies on the small size of the school sector in the country.			

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 $<sup>^{36} \</sup> Includes \ preprimary, primary \ and \ secondary \ (junior \ and \ senior) \ schools \ and \ technical \ vocational \ schools \ at the \ secondary \ level.$ 

	13.1.2	Coverage of post secondary (non tertiary) institutions census	institutions master- list which is used to determine the size of the target population. All	list of public institutions which has been updated within the year. The list of private institutions is less reliable as updating	incomplete national list of public and private institutions which was last updated over a year	irregularly on an ad hoc	1	TVET which is largely non-tertiary is not adequately covered. EMIS did map existing and formally known centres to the ISCED but nationally there is need for an NQF. In fact most of the TVET sector uses RSA qualifications and no effort has been made to create formal links with NQF RSA. In addition not all (most) are not registered with the Ministry, there is still a lot to be done in this sector.
	13.1.3	Coverage of higher and tertiary institutions census	and updated institutions master-list which is used to determine the size of the target population. All	list of public institutions which has been updated within the year. The list of private institutions is less reliable as updating	incomplete national list of public and private institutions which was last updated over a year	There is an incomplete national list of institutions which is updated irregularly on an ad hoc basis.	3	The few that exist are covered, but on a one to one basis. There is also another gap, there are some "fly by night" institutions that exist, but due to the NQF their statistics cannot be collected and mapped accurately.
Assessment of response rates to the census.	13.2.1	Response rate to the school census.	response rate from both private and public institutions in	response rate from public and private institutions in returning their questionnaires. Response rates are	- 79 % of institutions responding to the census questionnaire.	to the census	4	Currently EMIS achieves a 100% response rate.
	13.2.2	-	There is 80% or above response rate from both private and public institutions in	response rate from public and private institutions in returning their questionnaires.	-59 % of institutions responding to the census	questionnaire. Response rates are not reported annually.	1	Sector still disorganized. A large proportion of this sector is TVET, which all along was under the Ministry of Labour. Currently it has not been mapped to NQF and ISCED because it is still not organized well by the Ministry. Response rate cannot be determined, TVET have still to register and be mapped under the NQF/ISCED. The entry criteria vary a great deal. Efforts were made to benchmark from the RSA one because a number of the institutions are accredited to RSA standards.

	13.2.3	Response rate to the higher and tertiary census.	response rate from both private and public institutions in	returning their questionnaires. Response rates are	- 79 % of institutions responding to the census questionnaire.	rates are not reported annually.	2	Due to the number of such institutions, 100% response rate is always achieved. However there is one institution that still needs to be ISCED mapped.
Improving sample surveys	13.3.1	calculated <sup>37</sup> .	sampling errors (put technique here).		non-sampling errors.		2	CSO provides support.
-	13.3.2	Measures of sampling errors for key variables are calculated e.g. Standard error, coefficient of variation.	Measures of sampling errors must be calculated	sampling errors are published for the main variables. Measures of other variables are not	sampling errors are	Measures of sampling errors are not calculated.	4	An area which is not adequately covered, but on the research agenda of the EMIS.
Triangulation of Data	13.4.1	Data consistency.	Annual School Education Census	This occasionally happens when you identify a possible		This never happens.	2	This seldom happens
NORM AVERAGE	•						2.4	

### **NORM 14: TIMELINESS AND PUNCTUALITY**

Education statistics must be disseminated in a timely and punctual manner.

Components	Standards	Assessment le	ssessment levels							
		Quality	Acceptable	Questionable	Poor Statistics	Score	Comments			
		Statistics	Statistics	Statistics						
		Level 4	Level 3	Level 2	Level 1					
Statistics		Annual	Annual statistical	Annual statistical	Annual statistical report		NETIP published in 2013 uses			
publication				report is published	is not published at all.	3	2010/2011 data. However it was			
		<u>.</u>	within 2 years.	in more than 2		3	current data at the time of the			
		within the		years.			development of the report			

 $<sup>^{37}</sup> Poor \, res \, ponses \, to \, survey \, question naires \, either \, deliberately \, or \, due \, to \, lack \, of \, comprehension \, or \, poor \, conceptualisation \, by \, the \, surveyors.$ 

		cademic year of collection.					
A calendar of publication of data	frequency and ar release dates for data in place. fre states to se time.	requency of eleasing tatistics, and etting out a ime frame for heir release.	frequency exists but are only	on frequency and release dates are in	No guidelines exist for the frequency of release and release dates. Most of these decisions are left at the discretion of the relevant directorate/department head.	1	Dates for the 16 <sup>th</sup> day and the annual census are published but no calendar is available for data releases
Punctuality of 14.3.1 release	the dissemination schedule dispublicised. sc pu ac ex	rom the lissemination chedule is publicised in	Delays in the dissemination of statistics are occasionally published in advance.	Notifications of delays are scarce.	There is no clarity on release dates of data and no justification for delay in data publication is given.	1	No publication
14.3.2	Preliminary data disseminated in accordance to set timeframes.	Guidelines exist naking it possible to elease preliminary lata. High preliminary data	to release preliminary data. Preliminary data is disseminated but	guidelines in place	No preliminary statistics are made available to users.	2	There are no guidelines. Although release of preliminary data recommended in some cases. The EMIS does not recommend that because there is a tendency that such data are then manipulated by some consumers.
NORM AVERAGE		,	,			1.8	

#### NORM 15: COHERENCE, CONSISTENCY, COMPARABILITY AND INTEGRATION

Education statistics should be coherent and consistent, over time, and comparable between regions and countries; it should be possible to combine and make joint use of related data from different sources

Components		Standards	Assessment lev	vels				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Coherence <sup>38</sup> and consistency <sup>39</sup> of data	15.1.1	Statistics are compiled on the basis of established common standards.	always compiled	compiled, most of the time, on the basis of common	compiled,	No consideration is given to the compilation of statistics on the basis of common standards.	3	No data dictionary available
	15.1.2	Statistics are consistent over time.	Statistics use the same	consistency is mostly checked and comparison of datasets reflects missing data.	checked. Errors are found in comparing data across years and within the data	Statistical consistency is hardly checked and reported.	3.5	This is sometimes done.
	15.1.3	Statistics are coherent over time.	coherent or reconcilable over a minimum of five years.	Current year statistics are comparable to the previous year statistics in most cases.	statistics are sometimes compared to the previous year statistics for coherence.		3	Currently there is internal verification across years but year on year reporting is not done.
Compatibility	15.2.1	compared based on . Regional codes, . Schools codes,	compatible with other government databases (such as central statistical office	different sources can and are, in some cases,	different sources can be compared, but with great	Only statistics on administrative locations can be compared. Databases stand alone and have little or no links.	4	All databases are linked with EMIS unique numbers.

<sup>&</sup>lt;sup>38</sup> It reflects the degree to which data sets are logically connected and complete. The degree to which statistics can be brought together with other information

 $<sup>^{\</sup>rm 39}$  The same definitions and procedures are used over time.

with respect to scope (same parameters such as institutional profile, facilities, teacher and learner information, etc), definitions, units of measure and official classifications in the different surveys and sources.

<sup>&</sup>lt;sup>41</sup> Refer to Accounting consistency which is reconciliation across years (missing data is taken into account) and a rithmetic consistency is where subtotals add up to totals

		coordinates etc.	ministries) through unique identifiers.					
Comparison with other systems	15.3.1	Statistics are compared with other statistical systems.		are occasionally reconciled with other national surveys and sometimes involved in international and regional	are seldom	National statistics are compared with other statistical systems at no time.	3.5	Comparisons with the AU database have been made.
Interpretability	15.4.1	Time series data to allow for effective interpretation	data is available	Two years of data is available for effective interpretation.		Available data makes it difficult for effective interpretation.		
NORM AVERAGE							3.3	

## NORM 16: ACCESSIBILITY AND CLARITY

Education statistics should be presented in a clear and understandable form, disseminated in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance.

Components		Standards	Assessment le	Assessment levels				
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Clarity of education statistics	16.1.	presented in a	analyzed and presented in a	clearly presented but some limited analysis.		Statistics lack clarity and there is no analysis.	3	A glossary of terms is missing and there is limited analysis as many tables are without analysis. There is a need to consider regionally based performance analysis to empower regional decision making on strategic interventions

Dissemination	16.2.1	Annual Statistical reports disseminated utilizing various methods.	modern information and communication technology tools <sup>42</sup> and traditional hard copy.	distributed using modern technology mainly with hardcopy reports in limited numbers.	information and communication technology and hardcopy reports.	disseminated.	4	The Ministry disseminates hard copy reports and uses its web site. However there is no ministry intra net which limits the potential of users to data mine the statistics.
	16.2.2	Regular dissemination strategy in place.	information desk to cater for users and ccustomises its dissemination of annual publications to	provide information to	established arrangement to provide information to users. However, it is common to	There is no arrangement to provide information other than distribution of annual statistical reports.	3	Seldom customization
	16.2.3	Users are informed about the statistical processes and outputs.	metadata on the methodology of statistical processes and the quality of statistical outputs.			Users are not informed about the statistical processes and statistical outputs.	1	There is no documented meta data on the processes or outputs.
	16.2.4	Analytical reports provided to lower structures.	government structures receive official	annual summary statistics most of	government structures receive annual summary	Lower levels of government structures do not receive annual summary statistics	3	There is a need to provide regional level analysis for more effective performance management by regional education officers.

<sup>-</sup>

 $<sup>^{\</sup>rm 42}$  Web sites, internal shared drives, online storage sites, CDs and email.

 $<sup>^{\</sup>rm 43}$  Regions, provinces, districts and schools

	16.2.5	_	on analytical reporting is	analytical reporting is provided to EMIS	analytical reporting is provided to some levels.	No training on analytical reporting is provided.	3.5	The MOET needs to consider additional training.
Metadata	16.4.1	Documentation on metadata exists.	Meta-data documentation exists on the database and documentation includes a data dictionary and information on how the statistics are collected, produced and stored.	Some level of documentation on	documentation on	documented and no explanation is available.	1	No meta data documentation
NORM AVERAGE							2.6	

## NORM 17: COMPREHENSIVENESS

Education statistics and information are reported on for all sectors of education and training.

Components Standards Assessment levels								
			Quality	Acceptable	Questionable	Poor Statistics	Score	Comments
			Statistics	Statistics	Statistics			
			Level 4	Level 3	Level 2	Level 1		
Comprehensive	17.1.1	Education	Statistics are	Statistics are	Statistics are	Statistics are obtained		
statistics		statistics	reported on all	obtained for sub-	collected on most	only on one or two sub-		
		collected on all	sub-sectors of	sectors under the	sub-sectors of	sectors.		
		education sub-	education and	Ministry of	education but tends			
		sectors are	training.	Education but not	not to cover private		2	
		reported on.		sub-sectors from	institutions.			
				other ministries				
				who provide				
				education and				
				training.				

17.1.2	There are statistics on quality indicators 44 in the annual statistical reports.	training	statistics report(s) include some		The annual statistical reports include hardly any statistics on quality.	2	Not all sub sectors are covered in the report
17.1.3	Statistics are disaggregated by gender.	disaggregated	Distinctions are made by gender in most levels of education but not all.	disaggregation occurs only in basic	No gender disaggregation is found	4	There are some indicators which could be linked to school performance which is missing
Statistics on learners with special needs education <sup>45</sup>	Statistics on learners with special needs education is integrated with other education statistics.	learners with special needs to be collected at all sub-sectors of education. These are reported in	special education is collected for the primary and secondary sub-		Statistics on special education are hardly collected and reported.	3	EMIS has problems with the definitions of special needs which affects the quality of statistics captured
Statistics on rural/urban characteristics	Statistics are disaggregated by rural and urban.			on urban and rural are only collected	Distinct statistics on urban and rural are not collected.	3	The Ministry uses its own definition of urban and rural that is not compatible with CSO
NORM AVERAGE						2.8	

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Quality indicators are debatable but at the minimum should include graduation rates and at least three other indicators of efficiency - completion rate, promotion rate, drop out rates, pass rate, educator/leamer ratio, textbook pupil ratio disaggregated by gender.

 $<sup>^{45}</sup>$  Learners who are either gifted or have physical or mental challenges to learning.

#### **ANNEXURE A: Persons interviewed**

CountrySWAZILAND	Date of Assessment28 <sup>TH</sup> NOVEMBER 2013
<i>3</i>	

Name of Person	Title	Organisation
Hon. Minister Phineas Magagula	Minister	MOET
Ms Sibongile Mtchali-Dlamini	Director of Education and Training	MOET
Mr Jabulani Shabalala	EMIS Manager	MOET
Mr ? Simelane	Financial Controller	MOET
Mr ? Gwebu	Chief Planner	MOET
Mr Mboni Dlamini	SET programme officer	MOET
Mr Hanson Dlamini (Not available)	Education officer	CSO
Mr Maxwell Masuku	Director of Personnel	MPSU

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