FEDERAL MINISTRY OF EDUCATION

NATIONAL POLICY ON EDUCATION MANAGEMENT INFORMATION SYSTEM (EMIS) AND IMPLEMENTATION GUIDELINES

AUGUST 2021

FOREWORD

The Education Management Information System has over the years strived to place herself on the front-burner in the provision of data that shapes government decisions on critical developmental tendencies. The decision to meet this vital need of the education sector is informed by the fact that education is a major investment in the human capital development.

This improvement on the part of NEMIS in the provision of accurate, timely and reliable data is a shift from the previous situation where data were either unavailable or unreliable and could not form the basis for planning and decision making. Different agencies and international development partners collected and used different and discordant data on similar indicators. This anomaly extended to states, local government authorities and schools from where the data originated.

To address these, Federal Ministry of Education in collaboration with International development partners such as UNDP, USAID, DFID and UNICEF produced a working document to support the development of a result oriented EMIS. This policy document and its implementation guidelines are intended to provide direction for the management of education information at different levels of the education sector by specifying the roles of the different stakeholders and requirement for EMIS right from schools to the Federal level.

However, a document which was published in 2007 may be non-compliant with emerging issues and changes in the current year and years ahead. A technical committee was therefore set up with the mandate of reviewing the National Policy on EMIS and its Implementation guidelines.

The positive endorsement for the review at the National Conference on EMIS in Makurdi in 2019 Kicked started the process that included a workshop where the professional departments of the ministry and other stakeholders reviewed the draft document. A zoom meeting involving all the states ministry of Education and States Universal Basic Education Board (SUBEB) made their contributions to the draft document.

The [policy successfully passed through the decision-making organs of the education sector starting with the joint consultative committee on Education (JCCE) Reference committee on planning and the JCCE Education for Approval. The National Council on Education ultimately approved the revised policy on EMIS and its implementation Guidelines in Jalingo,Taraba State ,in August, 2021.

A comprehensive National Policy on EMIS will strengthen government ability to improve operations, drive innovation, deliver better services and an admirable educational sector. It will enhance strategic planning and institutional arrangements that would harness the potentials of every stakeholder in the education sector.

EMIS must therefore be given the needed resources and support for optimal performance.

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August, 2021

PREFACE

The planning and administration of education in Nigeria had not been easy due to the un-streamlined method of data collection before the approval of the National Policy on Nigeria Education Management Information System and its Implementation Guidelines in 2007 and 2009 respectively. The approval of the Policy in 2007 which decentralized Education Management Information System (EMIS) brought about State EMIS, LGA EMIS and the composition of members of the Committee at these levels. It also streamlined the process of Annual School Census (ASC) conduct, processing and reporting/dissemination of Nigeria Education data globally.

However, thirteen years after the approval of the Policy no review has been undertaken to address identified gaps in the Policy and to accommodate emerging issues in data generation and technological evolvement in data management. In view of these innovations and challenges, the National Committee on EMIS at the 3rd National Conference on EMIS held in Makurdi, Benue State in October, 2019 adopted the need for the review of the Policy.

The decision to review the National Policy on Education Management Information System (EMIS) set the stage for commencement of brainstorming and consultations towards coming up with a Policy and its Implementation Guidelines that addresses the observed weaknesses, gaps and flaws of the maiden edition. Therefore, to come up with a document that meets the aspirations and needs of all stakeholders in education data production, management and usage, the reviewed Policy went through a rigorous process with inputs from the academia, experts and technocrats.

A Consultant, Dr. David Shofoyeke of the Nigeria Institute of Educational Planning and Administration (NIEPA) Ondo painstakingly went through the previous edition and came up with a zero draft. This draft was thoroughly dissected by representatives of all the professional departments in the Federal Ministry of Education (FME) and the Parastatals of the FME at a workshop session. The draft document was also shared with the thirty-six States and FCT, and Development Partners through a virtual meeting for their inputs.

Finally, the document went through the statutory process of passing through the Joint Consultative Committee on Education (JCCE) Reference Committee, JCCE Plenary and the National Council on Education which approved the revised National Policy on Education Management Information System at its meeting held in Jalingo, Taraba State in July 2021.

I would like to encourage the States to work in line with the provisions of this Policy and the Implementation Guidelines so as to produce timely, credible and reliable education data that would aid evidence-based educational planning and administration in Nigeria.

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ACKNOWLEDGEMENT

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TABLE OF CONTENTS

ACRONYMS

i.	CUBE	Capacity for Universal Basic Education
ii.	DFID	Department for International Development
iii.	DPRS	Director, Planning, Research and Statistics
iv.	EFA	Education for All
v.	EMIS	Education Management Information System
vi.	EPR&D	Educational Planning, Research and Development
vii.	ERC	Education Resource Centre
viii.	ETF	Education Tax Fund Federal Capital Territory
ix.	FCT	Federal Ministry of Education
x.	IDPs	International Development Partners
xi.	JAMB	Joint Admissions and Matriculations Board
xii.	LGA	Local Government Authority
xiii.	MDAs	Ministries, Departments and Agencies
xiv.	MTM	Management Team Meeting
xv.	NABTEB	National Business and Technical Examinations Board
xvi.	NBS	National Bureau of Statistics
xvii.	NCCE	National Commission for Colleges of Education
xviii.	NCoE	National Committee on EMIS
xix.	NECO	National Examinations Council
xx.	NEMIS	Nigeria Education Management Information System
xxi.	NTI	National Teachers' Institute
xxii.	NBTE	National Board for Technical Education
xxiii.	NUC	National Universities Commission
xxiv.	TRCN	Teachers' Registration Council of Nigeria
xxv.	SCoE	State Committee on EMIS
xxvi.	LCoE	Local Committee on EMIS
xxvii.	NAPPS	National Association of Proprietors of Private Schools
xxviii.	FME	Federal Ministry of Education
xxix.	SMoE	State Ministries of Education
xxx.	SUBEBs	State Universal Basic Education Boards
xxxi.	LGEAs	Local Government Education Authorities
xxxii.	UBEC	Universal Basic Education Commission
xxxiii.	USAID	United States Agency for international Development
xxxiv.	WAEC	West African Examination Council

1.0   INTRODUCTION

The Nigeria Education Management Information System (NEMIS) is a database to support the effective management of the education system at the Federal, State, and Local Government levels to improve the performance of the education system as a whole and of learners in particular. It provides the basis for monitoring the effectiveness and efficiency of the educational system at all levels as well as promote equitable quality education and learning in Nigeria.

The National Policy on Education Management Information system outlines specifically those that are authorized to collect what information from which source and with what frequency. This is to effectively eradicate duplication and streamline the process of obtaining and distributing data as well as reduce ambiguity for all participants in the system.

There is therefore the need for the information provided by NEMIS to be integrated into existing decision making and planning processes as incentive for organizations to support the on-going development.

1.1 Background

The main function of Educational Management and Information System (EMIS) is to produce reliable, credible and timely education data which is highly essential for evidence-based planning and for achievement of education goals. In Nigeria, EMIS is managed at all three tiers of government, namely: Federal (NEMIS); State (SEMIS) and Local Government (LEMIS). Data is generated from the base which is the school,

then moves from school to LGAs, the State and the National to address the general demand of education data for both national and global use. Often times, the Annual School Census (ASC) is understood to mean EMIS but EMIS is about holistic information on the educational system as well as on other systems in the society that are related to education. EMIS equally include Geographic Information System (GIS) data of the school and catchment community information, Geospatial information which provides insights that were up till now impossible to gather as well as aid better informed decision-making in planning.

Schools being the primary source of data necessitated enhancing the capacity of many school heads on school records keeping, data storage and retrieval, data management and skills for completing ASC electronically. NEMIS has developed electronic ASC template and deployed to states and subsequently to schools to aid data collection. The capacity of EMIS staff has been strengthened in software and data management. Despite these efforts, obtaining credible, valid, reliable and usable data at all levels still pose challenges. Data given by states to development partners or used in the States are different from those supplied to NEMIS; thus, data vary in States depending on the purpose for which it is demanded.

The challenge of inadequate data from school still persists due to poor record keeping, low capacity of Teachers and School Heads in data management. Besides, there is also non-cooperation with accredited authorities by private school proprietors and other independent managers of some educational institutions; untimely response by States in the

submission of education data due to inadequate human capacity; shortage of appropriate equipment; and inadequate funds for procuring even the most basic item to deliver a credible EMIS across the country. This scenario is more pronounced as the scope of EMIS is expanding to reflect reforms in EMIS practice and implementation of global agreements such as Sustainable Development Goals (SDG4), as well as 'new normal' occasioned by the global pandemic (COVID-19).

1.2   Rationale

A comprehensive EMIS is a system of people, technology, models, methods, processes, procedures, rules and regulations that function together to provide education leaders, decision makers, and managers at all levels with a comprehensive, integrated set of relevant, reliable, unambiguous, and timely data and information to support them in the completion of their responsibilities. Thus, an EMIS can help provide accurate, complete, and timely data collection, which can promote more rational and effective education policy making. This can result in improved decision-making regarding: the volume and allocation of public financing, reaching vulnerable children (due to socio-economic circumstances, special needs, etc), staff recruitment, training, quality and adherence to standards.

The Nigeria Education Management Information System (NEMIS) supports the effective, efficient and timely Data management of the education system at Federal, State and Local Government levels. EMIS provides data for effective and strategic planning and budgeting, using empirical evidence for educational goals to be measurable. As a planning tool, it is useful for guiding day-to-day decision making and for evaluating progress.

This is to improve the performance of the education system as a whole and of students in particular. It also provides the basis for monitoring the effectiveness and efficiency of the educational system at all levels. In Nigeria, EMIS is managed at the three tiers of government, namely: Federal (NEMIS); State (SEMIS) and Local Government (LEMIS). The availability of NEMIS Policy and its implementation makes possible for data to be generated from the base which is the school, then moves from the school to LGA, the State and FCT and the Federal to address the general demand of education data for both national and global use. However, the functionality of NEMIS is hindered by a number of challenges which include but not limited to inadequate human resource, dearth of modern equipment, inadequate EMIS Infrastructure at Federal and State levels, inadequate budgeting and timely release of funds for effective implementation of EMIS, lack of consistency and coordination (vertical and horizontal) in the implementation and enforcement of the NEMIS policy at all levels of government.

Besides, emerging issues such as monitoring of SDG4, outbreak of COVID-19, Out-of-School phenomenon, Education in Emergency among others should be captured in the National Policy on EMIS. Also, new developments in EMIS such as the World Bank Systems Approach for Better Education Results (SABER), EMIS methodology and tools commonly used in EMIS evaluation, guidelines for data management functionality in EMIS developed by UNESCO Institute of Statistics (UIS) and Global Partnership for Education (GPE) were developed long after the NEMIS Policy was formulated. Thus, the foregoing necessitates the review of the NEMIS

Policy to enable it reflect new issues in the education sector and in line with best global practice.

1.3 Purpose

The purpose of this policy is to help streamline the data management for informed decision-making and planning of the education sector. The policy is also meant to ensure NEMIS consolidates and collates education statistics, maintains comprehensive national education database, sets standard for quality improvement of education data, and provides technical support to the State Ministries of Education, the FCT Education Secretariat and Local Government EMIS for enhancing their capacity to generate and maintain education data.

1.4 Objectives

The National Policy on EMIS is to support the achievement of the educational goals as articulated in the National Policy on Education, based on the following objectives:

i.   streamlining the data flow process from school to LGA, to State, to the Federal level of data relating to education inputs, activities, teachers and student-based outcomes;

ii.   responding in a timely manner, to the administrative, management and policy information need appropriate to the roles of schools, LGAs, States and the Federal Ministry of Education in the educational system;

iii.   developing and reporting on key indicators to monitor the achievement of national educational standards and annual targets of:

➢ LGAs at the school and school committee levels;

➢ States at the LGA level; and
➢ National at the State level

iv.   providing the basis for the Federal Ministry of Education to report on the status of education in Nigeria using national and international benchmarks and comparative global reporting and analysis.

Consistent with UNESCO's description of Education Management Information System (EMIS), further objectives that could be achieved by implementing National Policy of EMIS are to:

a)   improve capacities in data processing, storage, analysis and supply of educational management information so that education planners and administrators can avail themselves of reliable and timely data;

b)   co-ordinate and further improve dispersed efforts in the acquisition, processing, storage, transmission, analysis, repackaging, dissemination and use of Educational Management Information System;

c)   facilitate and promote the use of relevant information by various agencies and individuals at all levels for more effective educational planning, implementation and management;

d)   streamline the flow of information for decision- making by reducing and eliminating duplications as well as filling information gaps; and

e)   provide information for policy dialogue and scenarios for development of the education system.

These two sets of goals, though not mutually exclusive, cover the range of activities that will act as antidote to the many conflicts that have been affecting the system as elaborated above.

1.5   Scope

The policy covers plans to strengthen the EMIS; the coverage of national plans and SDGs in the EMIS; the coverage of equity and Out-of-School Children (OoSC); Quality Assurance (QA); data privacy; interaction with other data Systems; management and position in the overall education data architecture; resourcing and budgeting.

1.6   Vision and Mission Statements

The vision of this Policy is to develop, maintain and sustain a functional EMIS that involves a system of people, technology, models, methods, processes, procedures, rules and regulations that function together to provide education leaders, decision makers and managers at all levels with a comprehensive, integrated set of relevant, reliable, unambiguous timely data to enhance the completion of responsibilities.

The Policy further envisions an EMIS which operates a reliable, credible and resilient system for the collection, integration, processing, maintenance and dissemination of data and information to support decision-making, policy analysis and formulation, planning, monitoring and management at all levels of education.

The mission of the policy is to ensure that decision- making, policy formulation and analysis, planning, monitoring and management at all levels of the education sectors are informed by valid, credible and reliable data provided by NEMIS.

1.7 Policy Framework

A policy framework exist which mandates NEMIS as the custodian of education data (National Policy on Education, 2014). This allows NEMIS adequate data sharing and coordination with other data collection bodies within the education sector as well as other data collection processes outside the sector.

Accordingly, the approach adopted by this Policy is underpinned by Nigeria's existing obligations under International and Regional Treaties and Declarations as well as National Legislations and Policies.

1.8 Guiding Principles and Values

1.8.1 Key Principles

NEMIS database is to support the management of the educational system at all levels. As such it must be robust enough to meet the day-to-day administrative needs at school, LGA, State Level and FCT as well as the performance management needs at all levels of education. This requires a standardized record keeping and reporting system throughout the country.

The focus is on managing the performance of the educational system and, in particular, the development of indicators which provide the basis for

monitoring the implementation of national educational policies and standards across Nigeria in a consistent, timely and regular manner. In this perspective, the National Policy on EMIS provides the basis for researching effective policy alternatives and strategies as well as costs, identifying areas in need of remedial action and as a basis for setting annual performance targets as part of the annual budgetary process.

Furthermore, to support civic engagement in education, School Based Committees, parents and other stakeholders, (e.g., business establishments that employ graduates) need to be regularly informed as to the quality of education being provided in their local schools.

In order to ensure the virile development of a national EMIS Policy, key principles have been developed around the organizational, operational and transitional implementation of EMIS based on research and consultations undertaken to-date. In some instances, clear proposals have been developed based on what seems to be the logical conclusion of the research and consultations while others are more forward looking in terms of what the policy would need to address.

1.8.2 Organizational Principles

Principle 1: For the effective implementation and policy direction for the national EMIS, the establishment of a dedicated management framework is required at all levels.

Principle 2: To support the policy management structure, issues of purely technical nature will be demarcated from the mandate of the bodies to be set up under this policy and assigned to technical structures at each level.

1.8.3 Operational Principles

In order to simplify and increase the efficiency of the data flow system, the following principles will be followed:

Principle 1: Data is to be collected and entered only once exclusively by the administrative entity which has responsibility for the management of that aspect of the educational system and is closest to the supplier of the data.

Principle 2: Data collection forms and reporting formats shall be standardized throughout the country, using common definitions with set timing and frequency of regular administrative data gathering operations.

Principle 3: EMIS information requests at any level in the educational system should go first to the appropriate EMIS body at that level and, if unavailable, be directed to the next appropriate level.

Principle 4: Any information that has passed to a database at any level should be published using the National Committee on EMIS (NCoE)'s guidelines.

1.8.4 Effective EMIS Principles

Three principles of an effective EMIS are Sustainability, Accountability and Effectiveness. When these principles are combined, they result in an effective EMIS that adds value to an education system.

Sustainability: This refers to long-term use without which there cannot be long-term impact on the classroom. Components of a sustainable information culture is reorientation of education information system toward clients (learners, parents and communities), improved capacity of use of information at the local level, and increased demand for information.

Accountability: Holding people responsible or answerable for their actions and actions and is key in education. Decision makers need to rely, a quality data because accountability is increased when decision makers use data to improve the education system. Accountability is a critical element of service delivery that influences the incentives of both the providers (schools, teachers, national Population Commission) and recipients (Leaners, Parents, Communities) of information.,

Efficiency: Effective maintenance of education statistics and records so that decision makers can plan effectively. Efficiency is both internal and external. An efficient EMIS is necessary to support overall education management while inefficiency is a system of poor performance.

SECTION 2

2.0 POLICY STRATEGIES

The policy strategies revolve around three areas namely:

i.   structure;

ii.   enforcement; and

iii. resources.

2.1 Structure

Based on the key principles above, the following strategies need to be applied

for their realization:

- Annual or bi-annual Conference on EMIS which comprises policy makers, technocrats and other Stakeholders to chart forward EMIS development, deployment and penetration;

- National Committee on EMIS (NCoE) to supervise and regulate the relevant activities of agencies and institutions that produce educational data, and to rationalize the flow of accurate Education Management Information in Nigeria;

- Federal EMIS Committee to supervise and co- ordinate all EMIS activities within and between the Federal Ministry of Education and all its data generating agencies along lines that the NCoE may outline from time to time;

- State EMIS Committee to promote EMIS along the lines that the National Committee on EMIS may outline from time to time;

- Parastatals/Agencies (such as UBEC, NUC, NBTE, NCCE, WEC, NECO, JAMB, NABTEB, NTI, TETFund, TRCN, NCNE and others) to monitor their educational data in addition to coordinating information;

- Local Government shall be required to set up its own EMIS Committee;

- Educational institution as defined by law shall be required to statutorily keep at least a file, folder, or other records in whatever form as is appropriate to its level that shall contain information relevant to its operations in the appropriate format as required by the National Committee on EMIS, under the supervision of its Management Committee;

- The Local, State and FCT and Federal Governments shall be regarded as data NODES where information in respect of all institutions for which they have responsibility should be warehoused; and

- There shall be a database situated within the Statistics and NEMIS of the Federal Ministry of Education that shall be the apex data warehouse for the totality of educational data that flow from the schools and other sources through designated nodes to it.

2.2 Implementation

In order to implement EMIS Policy, specific strategies shall be operationalized.

i. Enforcement of Record-keeping in educational institutions.

ii. Continuous Training of Teachers in Record-keeping.

iii. Institutionalization of School Record Keeping in Pre- service/School Curriculum.

iv. Sanctions for Falsification and non-submission of Data in accordance with National Statistical Act of 2007.

v. Enabling policy that will compel Private, Unity, Military and Para-military Schools in 36 States and FCT.

vi. Ensure that Educational Institutions provide data.

vii. Provision of modern Technology.

viii. Training in ICT application.

ix. Engagement of skilled and relevant personnel.

x. Provision of adequate funds for data collection and management.

xi. Encouraging Monitoring and Evaluation.

2.3 Resources

(a) Human Resources

Those who do data collection, collation, processing, and analysis, need some minimal skills to be able to carry out their functions effectively. The first step in data collection is to design the instrument which is a difficult task that requires training. Other skills that need to be mastered include basic Statistics, ability to use Excel, and data analysis. These skills are generally inadequate, especially at the management levels in ministries, boards, and local councils.

(b) Equipment

Equipment required for the operation of EMIS in the MDAs, SMoEs and LGAs are Mini-Server, Workstations, Photocopiers, Scanners, Printers, Laptops, Tablets, Laser Jet printers, UPS, Network hubs and cables.

(c)   Financing

FME, SMoEs, SUBEBs, UBEC, SECo, AEO and LGEAs shall fund EMIS activities at the Federal, State and Local Government levels respectively. Development Partners (DPs) shall continue to support EMIS activities Private partners and NGOs shall also assist in funding EMIS development.

SECTION 3

3.0 RESPONSIBILITIES OF STAKEHOLDERS

The Provision of valid, reliable and usable educational data shall be the responsibility of everybody. However, the following stakeholders shall play these critical roles in ensuring that EMIS serves the purpose for which it is established:

3.1 FEDERAL MINISTRY OF EDUCATION

  i.   serves as the apex policy body for EMIS in Education Sector;

 ii.   develops, disseminates & implements Policy on EMIS in Nigeria;

iii.   develops guidelines on EMIS;

 iv.   coordinates/collaborates with key ministries at Federal and State levels;

  v.   uses reporting mechanisms to increase accountability;

 vi.   serves as the link between EMIS unit and other ministries, agencies and development partners as well as other countries;

vii.   allocates budget for implementation of EMIS;

viii.   develops indicators to track progress in ASC, quality assurance instruments and EMIS;

 ix.   Oversees, monitors and evaluates the implementation of EMIS Policy;

  x.   collects, collates, processes and disseminates continuous basic education statistics a nd other socio- economic indicators that a re internal (in-house) and sectoral to the Ministry for the purpose of educational planning, finance and policy;

 xi.   provides Manpower Training in collaboration with stakeholders;

xii. periodically reviews the Policy;

xiii. carries out continuous advocacy and sensitization on effective and efficient data management in public and private schools through LGAs, State Ministries of Education.

3.2 Federal Ministry of Education Parastatals/Agencies

i. ensure implementation of National Policy on EMIS;

ii. create EMIS Desk to keep a nd submit relevant data to NEMIS;

iii. cooperate with NEMIS to ensure timely reportage of data; and

iv. ensure continuous capacity development of EMIS Officers in their agencies.

3.3 State Ministries of Education (SMoEs) and other Government Agencies:

i. strengthen and enforce the National Policy on EMIS;

ii. ensure LGAs comply with National Policy on EMIS;

iii. use EMIS data in decision making and planning;

iv. ensure schools strengthen record keeping and regular submission of relevant educational data;

v. ensure continuous provision of orientation to learners, teachers, and parents on the significance of accurate records keeping, reporting and usage;

vi. monitor and supervise conduct of Annual School Census; and

vii. carry out sensitization and advocacy on National Policy on EMIS.

3.4 Local Government Education Authorities

i.   synergize with the State Ministries of Education on the enforcement of the National Policy on EMIS in schools;

ii. collaborate with the States in stepping up advocacy and sensitization on EMIS policy;

iii. ensure schools keep relevant records and submit educational data as demanded by the Ministry from time to time; and

iv. ensure continuous provision of orientation for learners, teachers, and parents on the significance of accurate records keeping, reporting and usage.

3.5 Civil Society Organizations (CSOs)/ Faith Based Organizations (FBOs) / Non-Governmental Organizations (NGOs)

i.   strengthen sensitization and advocacy on NEMIS policy;

ii. support schools and other educational institutions to develop data management system;

iii. support Ministries of Education in ASC completion, particularly in private schools and remote areas; and

iv. support capacity building of school heads and teachers on record keeping, retrieval, timely submission and use of data for informed decisions and planning at school level.

3.6 The Learner:

i.   readily learns about significance of provision of accurate data for decision making and planning in education; and

ii. provides accurate information to teacher for record keeping and use.

3.7 Parents/Guardians:

i.   ensure access to accurate information for record purposes;

ii.   be sensitive to the information needs and challenges of their wards; and

iii. ensure wards are properly educated on safe record keeping

3.8 School

i.   provide counselling and support services;

ii.   organize orientation on EMIS for Learners, parents, School Based Management Committee (SBMC) and Governing Bodies;

iii. ensure adherence to standard record keeping procedures as provided in the Policy;

iv.   show commitment to the security and confidentiality of all records;

v.   ensure that there is a designated officer charged with the responsibility of collation of EMIS records in the school;

vi.   create continuous awareness within the school community regarding the school's policy and procedures that incorporate EMIS;

vii. develop a school-specific procedure for handling EMIS records in line with the policy provisions; and

viii. ensure that the SBMC of public schools and Governing Bodies of Private Schools:
   ➢ support School EMIS development and functionality;
   ➢ support school submission of data as requested by the Ministry of Education or its agencies; and
   ➢ popularize mandatory record keeping on EMIS in the school.

3.9   The School EMIS Team

In the best interest of the children, and in consonance with best practices as well as providing support for the Designated EMIS Officer (DEO) and the Deputy DEO, the school sha ll establish an EMIS Team. This tea m shall include the:

a.   Head teacher/Principal - Chairman

b.   Chairperson of the SSMC/Governing Body;

c.   DEO - Secretary

d.   Deputy DEO; and

e.   Any other member(s) as required to help address specific issues, for example the School Counsellor/ Para-counsellor, ICT Co -Ordinator, etc.

This EMIS Team is a vehicle for ensuring effective co - ordination and co-operation among the key individuals responsible for EMIS records throughout the school.

In specific terms, the responsibilities of the team shall include:

i.   monitoring and periodic update of EMIS records in the school;
ii.   supporting the DEO and his/her Deputy in the exercise of their EMIS responsibilities;
iii.   ensuring that EMIS team is trained;
iv.   reviewing EMIS activities annually; and

v.   the Head Teacher/Principal, as the Secretary to the SBMC/BOG shall:

- include EMIS activities in the SBMCs' and Governing Bodies' termly meeting agenda;
- assist the SBMC/BOG to fulfil its EMIS protection duties;
- keep members of the school community informed of any changes to procedures regarding EMIS;
- ensure that any circular(s) and guideline(s) on EMIS from the Ministry of Education is shared promptly; and
- take lead in managing EMIS issues relating to staff.

3.10   Development Partners

3.10.1   National Bureau of Statistics

3.10.2   National Population Commission

3.10.3   National Planning Commission

3.10.4   EMIS Professional Associations

3.10.5   Central Bank of Nigeria

3.10.6   International Development Partners (IDPs)

The above are local and international collaborating agencies which support EMIS technically and financially for quality and timely data production.

SECTION 4

4.0 DOCUMENTATION, CAPACITY BUILDING/TRAINING, ADVOCACY, AWARENESS AND MOBILIZATION, GOVERNANCE, FUNDING AND PARTNERSHIP

Documentation or record keeping is essential to EMIS. It also helps to monitor compliance with laws and policies and determine their impact on the population. Documentation of records shall be practical and coordinated by Nigeria Education Management Information System (NEMIS) in collaboration with States, Local Governments and other agencies such as Bureau of Statistics and Schools. The information collected shall be comprehensive, up-to-date, timely, objective, and confidential.

Such records shall be kept at the National, State and Local Government levels in hard and soft copies and made available to relevant stakeholders when the need arises.

4.1 Capacity Building/Training

All NEMIS staff shall be trained periodically in requisite skills to enhance their capacity. Similarly, SEMIS and LEMIS Officers shall receive regular training to update their skills for efficient job delivery.

At school level, school authorities shall ensure that all staff, workers/school prefects are properly trained to provide standardized skills and knowledge on EMIS and record management. Newly recruited personnel shall be given orientation on EMIS and records management.

Governments, partners and corporate organizations shall be urged to provide the desired trainings for stakeholders in order to improve on their skills and strengthen governance frameworks. In this regard, the Policy requires that every school shall ensure the following:

a) the Designated EMIS Officer/Deputy undertakes Refresher trainings on staff and learners record management within the context of modern best practices

b) the Head teacher/Principal, all members of staff and members of the SBMC/ Governing bodies shall receive appropriate school level EMIS training, at least, every two years;

c) all trainings shall always include EMIS indicators at school level;

d) in addition to the trainings, all members of staff shall receive updates as often as available, to provide them with relevant skills and knowledge to safeguard educational data effectively; and

e) induction for all new members of staff and members of SBMCs/ Governing bodies shall include:

- NEMIS policy;
- Mandatory reporting procedures; and
- Staff code of conduct.

f) Records of all EMIS training undertaken shall be kept for all staff and members of SBMCs/Governing bodies.

4.2   Advocacy, Awareness and Mobilization

Advocacy, awareness and mobilization are key elements to ensuring effective implementation of NEMIS Policy. It is important for government to engage in periodic public awareness campaign in strengthening EMIS in FME Departments, Agencies, SMoEs, FCT Education Secretariat, LGEAs and schools which shall ensure effective participation of stakeholders in the execution of the policy.

Government at all levels in collaboration with relevant stakeholders shall:

a.   ensure and promote periodic public awareness campaigns on EMIS and relevance of reliable data for planning and decision making in schools and the education system using electronic media, flyers, seminars, workshop, community sensitization and mobilization;

b.   develop implementation strategy and specific guidelines for NEMIS Policy to ensure coordinated implementation;

c.   engage Development Partners (UNICEF, DFID, UNESCO, The World Bank etc among others.) in advocacy awareness and mobilization;

d.   develop a campaign work plan at different levels with time lines as may be required;

e.   build and maintain an active database on cases and procedures of staff and learners in schools; and

f.   explore proactive opportunities (funding, expertise and technical support) to support advocacy, awareness and mobilization objectives.

4.3   Governance

A good governance model is critical to the successful implementation of this Policy as it defines the roles of the various entities and officials involved in NEMIS and allocates responsibilities.

The role of schools shall primarily be to set up school data base, collect, analyze and disseminate report to school head who in turn submit to LGA and State and further to NEMIS. Each entity or official shall have specific roles and responsibilities, with coordination mechanisms well defined among stakeholders. In this regard, government at all levels shall:

a.   review existing laws and enact new ones to strengthen governance on EMIS in Nigeria;

b.   provide and continually appraise principles and guidelines on School level EMIS in line with national goals and global trends;

c.   enact laws to guide access and control of security threats in schools;

d.   monitor the implementation of the NEMIS Policy; and

e.   encourage the implementation of research findings on School level EMIS, LEMIS and SEMIS.

4.4   Funding and Partnership

The increasing awareness about reliable data in decision making and planning efficient education system particularly amongst development

partners and private school operators is a welcome development. However, in view of the huge financial involvement to deliver quality education at all levels, it has become obvious that government alone cannot bear the burden of funding the activities of EMIS. There is, therefore, the need for governments to form partnership with relevant stakeholders for successful implementation of the policy.

Consequently, the following innovative and creative financing models shall be instituted and sustained for EMIS at National, State, LGEA and in the schools:

a.   harnessing partnerships with development partners for funding child-EMIS;

b.   leveraging on the existing funding channels for Basic Education delivery such as UBEC, Safe School Initiative (SSI);

c.   accessing funds from Corporate Organizations as part of their corporate social responsibilities to the communities;

d.   ensuring legislative backing for appropriating funds from taxes paid by corporate bodies relating to education;

e.   intensifying the use of Public Private Partnership models; and

f.   encouraging community participation in the areas of tracking expenditure and ensuring accountability.

For this National Policy on EMIS to be successfully implemented, it is recommended that there shall be regular budgetary provisions for EMIS activities with prompt release of funds.

SECTION 5

5.0 POLICY IMPLEMENTATION, RESEARCH AND DEVELOPMENT, MONITORING AND EVALUATION (M&E), POLICY STATEMENT, STRATEGIES, POLICY REVI EW AND SUSTAINABILITY PLAN

5.1 Policy Implementation

The implementation of the NEMIS Policy in Nigeria shall be systematically followed to deliver reliable and valid data from school level to LGA, State and NEMIS. The Federal Ministry of Education shall provide the leadership for the implementation of the policy.

The Ministry shall coordinate the activities of government at the various levels. Therefore, for effective implementation of this Policy in Nigeria, there shall be three major operational divisions representing the three tiers of government - Federal, State and Local Government.

There shall also be regular evaluation and counselling at all tiers of government on matters relating to the implementation of the Policy.

The Federal Ministry of Education, for the purpose of implementing this policy shall:

a.   provide high level political, technical and critical leadership support;

b.   cultivate positive attitudes and perception towards data collection, processing and dissemination;

c.   mobilize the support of education stakeholders such as traditional rulers, community and religious leaders at all levels, to transform public attitudes and perceptions towards an effective EMIS;

d.   strengthen and coordinate institutional mechanism for the implementation of NEMIS policy

e.   coordinate adequate sharing and dissemination of EMIS information;

f.   ensure effective planning, budgeting, implementation, monitoring and evaluation of the EMIS policy;

g.   develop communication and advocacy strategy to popularize the benefits of EMIS; and

h.   develop and enforce a legal framework for the NEMIS policy.

5.2   Research and Development

Research and Development is important in discovering the appropriate method of strengthening EMIS towards commitment, sustainability, accountability and efficiency.

To this end, Government shall encourage Research and Development in ensuring functional EMIS in Nigeria. Furthermore, government shall:

a.   appraise legislations to ensure dedicated funding to support research in EMIS at all levels;

b.   increase funding dedicated to research initiatives to discover new methods of strengthening EMIS enabling environment, system soundness, quality data and utilization for decision making;

c.   provide and encourage increased opportunities for research initiatives that are result-oriented and targeted at solving problems associated with EMIS; and

d.   support the adaptation of research concepts, methodologies and innovations.

5.3   Monitoring and Evaluation (M&E)

The need for a comprehensive National M&E of the policy is very critical. The M&E shall outline National targets, indicators and the results shall be based on the National strategic plan, to ensure smooth school administration in Nigeria.

5.4   Policy Statement

Government shall measure the progress made towards the attainment of the strategic objectives, indicators and targets for the National, State and Local Government responses, as contained in the National Strategic Plan (NSP) over the period of the plan.

5.5   Policy Strategies

In order to achieve the objectives of the policy statement, the following strategies shall be employed:

- Develop instruments for Monitoring and Evaluation of impacts;
- Disseminate Monitoring and Evaluation instruments to EMIS Unit at FME, FME agencies, States, LGEAs and institutions;
- Conduct monitoring and evaluation exercises;
- Analyze and interpret data; and
- Produce and disseminate reports.

5.6 Policy Review

The continued existence and relevance of a policy is determined by how regularly the policy is reviewed. There is need to take a comprehensive

review of the existing policy to determine whether the policy is relevant, implementable, effective or whether it reflects the new realities.

This Policy shall therefore be jointly monitored and reviewed every five years by the National Committee on EMIS which comprises FME and its agencies, SMoE, National Bureau of Statistics (NBS), Development Partners, Civil Society Organizations (CSOs) and other non-state actors. This is to ensure compliance with the guidelines and responses to data gaps arising from policy implementation.

The review of the NEMIS Policy shall be based on the following:

a. the need to analyze and review the existing policy based on identified gaps;

b. research findings revealing the need to review the existing policy;

c. presentation of Draft Review Policy to Stakeholders for critiquing; and

d. final endorsement by policy makers.

5.7 Sustainability Plan

Government is committed to ensuring effective EMIS for the production of credible and reliable data for decision making and Education planning to improve learning outcomes in accordance with international best practices. Functional EMIS at national, State, LGEA and school should be prioritized in National Policy planning and implementation. This should be reflected in the allocation of national and State budgets, beside requests for development assistance from International Partners and the Organized Private Sector.

5.7.1 Sustainability of the Policy

The strength of this policy lies heavily on the pre-existence of educational structures and mechanisms. To sustain the intents and purposes of the EMIS, there shall be need to build and establish mechanisms driven by Federal/State Ministries of Education, FCT Education Secretariat, Local Government Education Authorities and other relevant stakeholders. The strategy for sustainability shall include:

a.   advocacy and sensitization to relevant stakeholders which include political office holders, proprietors of private schools, school managers, etc;

b.   institutionalization: integration of the EMIS programme into pre-and in-service teacher training programmes, workshops, conferences and other relevant programmes to guarantee its long-term sustainability;

c.   capacity building: building capacity of staff of institutions, community members, schools and learners to act as advocates to ensure long-term sustainability of the policy;

d.   funding: provision of Budgetary Allocation for funding of EMIS in FME, SMoEs, SUBEBs, UBEC, and other relevant stakeholders in collaboration with Development Partners;

e.   the buy-in of relevant stakeholders shall help to promote sustainability. At community level, stakeholders buy-in shall be sought from traditional rulers, community and religious leaders, SBMCs, Parent Teacher Association (PTAs) and other established structures;

f. establishment of EMIS at school level: EMIS to ensure that data is collected, ana lysed and interpreted annually for planning, decision making and improve learning outcomes; and

g. there shall be one source of data from data generating agencies.

SECTION 6

IMPLEMENTATION GUIDELINES

FOR

NATIONAL POLICY ON

EDUCATION MANAGMENT INFORMATION SYSTEM

LIST OF ITEMS

- ENABLING REGULATIONS
- COMMITTEES ON EMIS
- RECORD BOOKS
- DATA REPORTING
- DATA PROCESSING
- DATA FORMAT
- DATA DICTIONARY
- DATA QUALITY CONTROL
- THE MISSING DATA TRAINING
- THE ROLE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN EMIS
- THE ROLE OF DEVELOPMENT PARTNERS (DPs) AND THE ORGANIZEDPRIVATE SECTOR (OPS)
- INFRASTRUCTURE REQUIREMENTS
- IMPLEMENTATION COSTS
- APPENDIX: NIGERIAN SCHOOL INPUT QUALITY INDEX {DATA DICTIONARY)

A. ENABLING REGULATIONS

Defining what an educational institution is: There are many institutions that offer 'education' of one type or the other at various levels and with curricula that range from religious to secular in nature. There is an obvious need to introduce some order so as to ·be able to map out logical paths that will facilitate the management of the education sector using information that emerge as direct consequences of daily operation. Unless a definition of what a school is exist, there will be controversy in applying some education laws that attempt to regulate practice.

- ➢ This in fact is not a new idea but one that has served education well in the past and has since been cast into the dustbin of history. For instance, the education laws of the early states (regions) in Nigeria defined an educational institution as follows: A school is a place where nine (9) or more children receive instruction on a regular basis. The laws go on in other parts to exempt places where, in the main, religious instruction is given from being regarded as a school for the purpose of the education laws.

- ➢ This need to clearly define what a school is even more urgent today because some institutions that in the past taught religion only have had to broaden their curriculum to include some traditional subjects like Mathematics, English, and Primary Science that can hardly be covered with r e l i g i o u s l a b e l s . In light of present-day realities, states might need to provide an all-embracing definition for the term, educational institution or school, to ensure no group is excluded for the purpose of data capturing.

➢ Criminalizing failure to supply or falsification of information in respect of education: Deliberate falsification of data has been reported over the years and it is a real cause of concern because it does not seem to be abating. It is also common knowledge that some institutions are sometimes reluctant to supply data regarding their activities to appropriate authorities. Stakeholders' attention should be drawn to the fact that under the Statistical Act of 2007, it is an offence punishable by a fine of one hundred thousand naira or one-year imprisonment, on conviction, to supply false data or returns. The same applies to failure to supply required information.

➢ Comprehensive Coverage of educational institutions: To ensure total coverage of all educational institutions in the country, it is important to put in place procedures to register all institutions offering education to learners. This will call for a number of measures.

➢ Giving the Committees on EMIS the necessary recognition: The Nigeria Education Management Information System (NEMIS) Policy gives the committees on EMIS responsibilities for regulating the pursuit of EMIS across the country. This should be recognized and respected by all stakeholders including public and private educational institutions, civil society organizations and international development partners.

B.   COMMITTEES ON EMIS

The National Committee on EMIS (NCoE): This body is responsible for the overall regulation and implementation of the practice of EMIS in the

country. It shall work in conjunction with the other EMIS committees to ensure systematic reporting and wide dissemination of information.

Functions NCoE shall:

- Ensure that NEMIS is independent, adequately funded and managed.

- Make provision of policy guidance and strategic leadership for the various EMIS committees that carry out corresponding functions at other levels of the education sector.

- Articulate the problems, needs and successes of EMIS in the sector report to the National Council on Education at each of its meetings

- Resolve issues consistent with the principles articulated in the National Policy on EMIS.

- Make regulations which mandate reporting cycles and standardized reporting of coredata for all educational institutions, agencies and entities in Nigeria.

- Make regulations which prescribe minimum data reporting formats and frequency of publication for all EMIS nodes.

Composition: The committee shall be composed as follows:
- The Director, EPR&D of FME as Chairman
- A representative of the National Bureau of Statistics
- A representative of National Population Commission
- A representative of National Planning Commission
- A representative of State Committees on EMIS (SCoE)
- Representatives of IDPs

- One representative each of the NUT, private proprietors of schools, CSACEFA

- Representatives of FME data generating agencies/departments/units

- The head of NEMIS who shall be secretary to the committee.

Meetings

The Committee shall meet at least twice in a year.

State Committee on EMIS (SCoE): The Committee shall coordinate all EMIS activities in the State. It shall ensure that reporting schedules for the maintenance of the flow of data and information are regular and consistent with mandated reporting cycles.

Functions:

SCoE shall;

➢ Work closely with the NODES where reports are processed to ensure timeliness and uninterrupted flow.

➢ Publish and transmit information from their Nodes to the NEMIS, while at the same time ensuring that all sources of data are given feed-back as to the outcome of the process

➢ Ensure Annual School Census, Finance of Education, State Learning Achievements and other requisite reports are published and uploaded o n the State Ministry of Education's website

Composition: on EMIS

- Director, PRS SMoE as Chairman

- Director, PRS SUBEB

- Director, PRS Secondary Education Management Board

- Chairman, Proprietors of Private Schools Association in the State

- Representatives of parastatals of some agencies

- State Bureau of Statistics

- One representative each of LGEAs

- Representative of FEQAS in the State

- Representative of State NUT

- Representative of State based education NGO

- State Ministry of Education EMIS Officer and State Universal Basic Education Board EMIS Officer

Parastatals' Committees on EMIS (PCoE): There are parastatals whose functions are defined by the educational level at which they operate and the level of government that empowers them. Parastatals below the tertiary level of education are usually responsible to State governments. The conspicuous exceptions are UBEC and SECo which are directly responsible to the Federal Government for basic and secondary education

Functions

- These bodies shall coordinate all EMIS activities for the institutions for which they have the mandate of the government that sets them up both at State and Federal levels.

- They shall actively relate to the NODEs to which they are attached to ensure that in-coming data are accurate and reporting as demanded by regulation is done in a timely manner.

- The functions of State parastatals that deal directly with educational institutions include the employment and deployment of teachers and the management of the affairs of secondary schools outside the purview of the oversight functions of UBEC and SUBEB as well as SECo and SEMB.

- The recording of educational events and the generation of educational data that encompasses the totality of the standard statistical requirements for management and planning.

- The overview functions of the tertiary level parastatals of the Federal Government subsume the existence of those at the state level. While the State agencies report to the states in respect of individual institutions, the Federal agencies not only acquire the same set of data but also generate statistical information that depicts the state of tertiary education in the country.

Composition:

- The heads of all departments in the agency

- A local representative of the Federal Bureau of Statistics

- A member each of the School Based Management Committee of the schools under the agency (if applicable), preferably the headmaster and must include those from private schools.

- In the case of tertiary institutions, representatives of the heads of the institutions that are under the umbrella of the agency, preferably IT or planning personnel.

Local Government Committee on EMIS (LCoE): Local Government is the closest body of governance to the people. Being close to day-to-day

events in its areas of jurisdiction, it has the potential to be visual witness to things like new schools being built or the gathering of children at any location for regular instruction among other things.
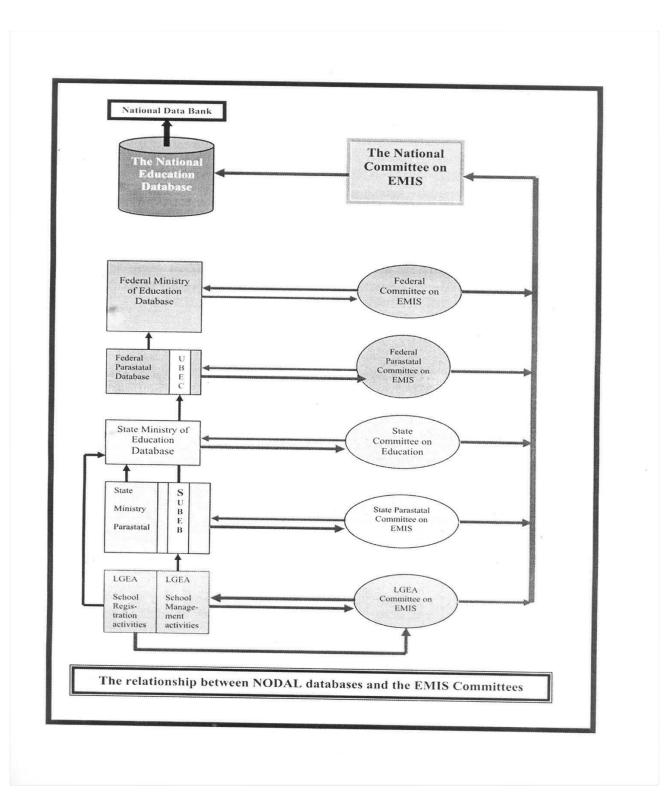
Functions

- Assisting **new and old** educational institutions to conform to laid-down rules for the opening of new educational institutions and to register them on completion of the appropriate forms prescribed for the purpose.

- Sends reports of new or closed schools regularly to the State in which it is located.

- Produces the directories of schools for the LGA. The new addition of geographical co-ordinates to school data further supports the need to use LGEA for this purpose.

- Serves as sole link between EMIS and the schools for the collection of mandated and special purpose data reporting.

- LGEA forwards processed or raw data to the State EMIS. Ultimately, the goal is to have all mandated data collected from schools to be processed at the LGEA level and reported to the other EMIS nodes as appropriately prescribed.

Composition:

➢ The Local Government Education Secretary
➢ All key officers in the LGEA
➢ Representatives of School Based Management Committees

- ➢ Representative of the Chief Inspector of Education
- ➢ Head of Schools Services in the LGEA
- ➢ Local Government EMIS Officer

National Conference on EMIS (NCoE): The National Conference on EMIS is a forum where Education policy makers meet annually to review EMIS activities, approve policies and regulate operations of relevant Agencies and Institutions that produce Education data to rationalize the flow of efficient and effective Education Management Information System in Nigeria. The Conference shall bring together the Honourable Minister for Education, Commissioners of Education, Chairmen of State Universal Education Boards, Academia, Development Partners, NGOs and other relevant education stakeholders.

The relationship between NODAL databases and the EMIS Committees

Inter-relationship of Committees: The inter- relationships between the various components of government and agencies involved with educational statistics are critical to the proper functioning of EMIS at all levels. There is need therefore for cooperation and collaboration among the various components and levels of government and committees, the schema below indicates the inter-relatedness of various operators in EMIS from the schools to the national level.

Working in collaboration or coordination, rather than in competition or isolation, will help to eliminate tedious and expensive data colleting procedures and get rid of duplicate data sets that add no value to the EMIS process. It will also call for logical redefinition of roles and the replacement of data collection which could be a matter of convenience, with data reporting, which is regulated and mandatory.

The schema envisages a situation in which the LGEA routinely reports (makes available) to the States Ministry all its processed information over a defined time period. Similarly, parastatals routinely report to the governments that set them up. Besides these two symbolic relationships, no agency has to report to anther in respect of either raw or processed data. All processed data end up in the National Education Database (the cylinder of our schema) as result of the inter-relations between the various committees.

The creation of the committees (represented by ovals on the right-hand side of the schema) is to ensure that EMIS is given a pride of place at all level. First, each committee is link to a data node where processed data exists. Every locally generated set of information in a data bank is reported

to corresponding committee as a matter of routine, which guarantee instant redirection to the National Education Database. The other side of the relationship is that the benefits of all national decision and activities like training, supply of equipment, and technical tips that touch on EMIS filter down to these nodes quickly.

Secondly, they are set up to enjoy some degree of independence. An educational data network does not come cheap. By been rooted in the level of government at which they exist, the ownership of the committees is not doubt. By been a part of a statutory national set- up, on the other hand, they are assured of adequate support especially in the area of funding that may require only minimal input from the level to which they belong.

Thirdly, the committees formed a national network for taking EMIS related issues that reach into every corner of the education sector in concentric circles that eliminate overlap and duplication of efforts.

C.   RECORD BOOKS

•   School events as they occur are the building blocks of EMIS. It is best if these events are captured appropriately at the point of occurrence by eye witnesses for their nuance to be preserved before they get distorted through transmission to other persons in other places at other times. There must therefore be a medium for the instant recording of these events by competent observers as they unfold in and around the school.

The genre of record-books includes those that are:

Learner-related records that deal with:

- Bio-data
- Human and social development records
- The academic performance of the learner
- Non-academic characteristics

Teacher-related records that deal with

- Bio-data
- Academic and professional preparations
- Opportunities for professional development
- Discharge of duties at school on a daily basis
- Duties including the teaching load

Other Records

- Buildings and other infrastructural facilities
- External contacts and activities
- Supplies and storage
- Audit-related activities
- Graduate output
- New entrants

D. DATA REPORTING

➢ Teachers and others so charged in Pre- Primary, Basic Education, and Senior Secondary schools should record daily events within their purview in appropriate record-books designated for that purpose as these events occur. These occurrences should be reported in the format stipulated and submitted to the head teacher (or any other person so designated) as a matter of routine at the times prescribed.

➢ The head teacher is obliged to report these occurrences to the next higher agency that has oversight responsibilities for the school at the stipulated time and in the format required by regulation which is recommended to be weekly.

➢ It is presumed that such information, most of which might be routine, shall have been seen by or brought to the notice of the SBMC members who shall be held responsible for the veracity of such information. Whatever internal agreement is reached for the SBMC to be involved with this arrangement, should not, in any way, delay the submission by the head teacher to the body exercising oversight responsibility over the school.

➢ Where the body exercising oversight, responsibility is a Local Government Education Authority (LGEA), the reports from all the institutions within that LGA shall be processed and stored in a data base that shall be a designated NODE, preferably in an electronic format.

E.   DATA PROCESSING

➢ Data should be processed as close as possible to the source of derivation and only once.

➢ Verification and validation of processed data should be ensured.

➢ SMoEs should empower their various EMIS units to process data electronically.

➢ Another provision that must be made for data processing centres and data NODEs is the availability of electricity at all times.

F. DATA FORMAT

➢ With over 900 data NODEs all over the country, there will clearly be need to harmonize the data format for every level and type of activity. This is one of the harmonization issues that the EMIS committees will be involved in. The NCoE should be very flexible and accommodate the needs of every data-generating agency and at the same time ensure that formats of data in the common domain are standardized.

G. DATA DICTIONARY

➢ The maintenance of a data dictionary is one of the functions of the NCoE. From time to time the existing compilation should be revisited and expanded as the scope of work on EMIS expands.

H. DATA QUALITY CONTROL

➢ One possible avenue for improving the quality of information that circulates in respect of schools is to obtain first-ha nd information from inspectors of schools as to what is on ground at the time of their visits. The use of each school's data as a verification base for the officers to check and report variances back to the nodal databases improves the integrity of the data. Duplication of data should be avoided.

I. THE MISSING DATA

➢ The educational management information system covers all events in the education sector and the performances of every individual including learner and teacher. The primitive level of the present system focuses attention on enrolments and a few other events in the school. The outcome of learning, which is a major reason for schooling in the first instance, shall be properly recorded so that the performance of individual learners can be tracked.

J. TRAINING

➢ One theme that runs through the study that was conducted during the NEMIS Policy development process was the lack of human capacity in every facet of information management. It is like Nigeria is just about to start from scratch to develop the necessary capacity for providing the services that will sustain the development of an EMIS. At the heart of it all is the need to massively empower a very large work force in the education sector to take up the challenge of creating the network of activities that will result in the efficient running of the management information system.

➢ Programmers are required at almost every level of the conversion of raw data to information. These professionals along with **Database Managers** and **Analysts** should be developed from among those already in service through in-service training. Any attempt to recruit

them directly from outside shall not succeed because for now, they are more likely to earn on the average three times more than what the civil service can offer them.

Strategies of Training

➢ Provide uniform training standards that would enable most of the teachers already in schools to acquire the skills to keep records properly. This could be done as part of the continuous professional development of teachers whether at the school, LGEA or state level.

➢ Record keeping and other things related to data management should be part of the core curriculum of teacher education at Colleges of Education and Faculties of Education of Nigerian Universities.

➢ Different cadres of education professionals, especially those working in the Federal and State Ministries of Education and their parastatals, shall be trained on data management using such strategies as workshops and seminars within the country and abroad.

➢ Study tours could also be organized for key staff to peer African countries that have reached reasonable levels of education data management.

K. THE ROLE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN EMIS

➢ The degree of the use of technology that is implied in the Operationalization of the National Policy on EMIS can be compared to the move from using the ox cart to the airplane. The justification for this leap is that the deadline to catch the future cannot be met unless

we fly. ICT will provide the wings with which the education sector can fly in meeting its data management needs.

➢ The use of ICT will fast track the process of EMIS development.

➢ The EMIS Database structure should be developed and equipped with modern ICT facilities.

➢ Federal and State Ministries and Agencies should each have a crop of professionals to advise, aid the purchase and setting up of equipment, arrange training, maintain, and generally handle issues that border on infrastructure needs in EMIS.

➢ The network of EMIS that is now moving slowly from the use of personal (stand- alone) to Networked systems will require a full-time team of IT professionals to plan and sustain the grid on a continuous basis.

➢ NEMIS application should be seated on strong IT equipment with minimum configuration that can be expanded with a strong 24-hour UPS back-up to power the system such that it will not depend on the national power system.

L. THE ROLE OF INTERNATIONAL DEVELOPMENT PARTNERS (IDPS) AND THE ORGANIZED PRIVATE SECTOR (OPS)

➢ In view of the huge requirements for making the Policy on EMIS operational to ensure that EMIS grows up healthy, effective and robust, Nigeria will need the support of its international partners and the organized private sector. IDPs and the OPS can contribute to:

➢ technical assistance at all levels;

➢ procurement/supply and maintenance of ICT equipment;

➢ capacity building and human development at federal, states and LGA levels;

➢ supporting the design/redesigning and deployment of NEMIS software to agencies at FME, SMOEs, LGEAs and their Parastatals;

➢ supporting capacity building for **Programmers, Database Managers** and **Analysts** already in service through in-service training; and

➢ The details of how to realize the above shall follow the policy of government and be coordinated by the requite MDAs.

M. INFRASTRUCTURE REQUIREMENTS

The following basic requirements are recommended for each *EMIS NODE* depending on their data needs:

➢ **State**

• One mid-range server with up-gradable capacity;

• Minimum ten (10) computers for Statisticians, Analysts, Programmers, and Data inputting;

• Three Lap-tops (3) for Database Managers;

• Three printers including network printer;

• Photocopier, Scanners {2 different sizes);

• Internet connectivity with V-Sat facility;

• 24 hours UPS Back-up power facility; and

• Strong back-up capability for Database to be archived at external location.

➢ **LGEA Nodes**

• One mini server with up-gradable capacity;

• Minimum six (6) computers for Data inputting;

• One Lap-top (1) for Database Manager/Analyst;

• Two (2) printers including Desk Jet printer;

• Photocopier, Scanner;

• Internet connectivity with V-Sat facility;

• 24 hours UPS Back-up power facility; and

• Strong back-up capability for Data base to be archived at external location

N. IMPLEMENTATION COSTS

➢ The estimated costs of implementing EMIS at each NODE can be arrived at by estimating the infrastructure requirements given above for each NODE plus other costs. Each NODE will be required to provide cost on its infrastructure needs based on the prevailing market value. It should always be borne in mind that inflation rates as well as the exchange rate of the Naira to the Dollar and other foreign currencies would determine actual costs at implementation. Again, the needs of states, LGEAs and parastatals could vary depending on the quantum of data to be dealt with and local capacity available at the time of implementation.

Infrastructural cost could also be shared between agencies especially at the LGEA level, e.g., between so education and health etc.

➢ It is important to remember the costs of personnel, capacity building and consumables in arriving at EMIS implementation costs.

➢ Ministries, departments and agencies at all levels should always include EMIS activities in their annual budgets.

➢ Civil society organizations should be involved in advocacy for adequate funding of EMIS activities at all levels.

UNITY AND FAITH, PEACE AND PROGRESS