RMI PUBLIC SCHOOL SYSTEM

EDUCATION MANAGEMENT INFORMATION SYSTEM POLICY

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1.0 POLICY OBJECTIVE

1.1 The purpose of this policy is to provide a framework that will enhance and facilitate effective, efficient, and timely data collection from schools to the Public School System and all stakeholders. It is designed to ensure that the collection and entry of data is undertaken with care and concern to continually raise the quality of data in the Marshall Islands Education Management Information System (MIEMIS) database.

2.0 BACKGROUND

2.1 The Marshall Islands Public School System, through the Policy and Planning Division, is required to provide information for the regular reporting requirements of the Public School System and on a needs basis. The documents that outline and require regular performance reporting include:

1. Economic Policy, Planning, & Statistics Office (EPPSO) reports.
2. Public School System Annual Report
3. Public School System Strategic Plan
4. Ministry of Finance Quarterly Report
5. Joint Economic Management and Fiscal Accountability Committee (JEMFAC) annual indicators
6. Public School System Annual Budget Portfolio
7. UNESCO Statistical Data on Education Attainment
8. United Nations Sustainable Development Goals Indicators

2.2 The Division of Policy and Planning acquires and stores a large amount of information. However, information is also gathered and stored in a variety of databases within PSS. MIEMIS aims to link these major databases: the Teacher Standards & Licensing Board database, the Human Resource database, Special Education database, and the Testing Office database.

3.0 RELEVANT LEGISLATIONS AND AUTHORITIES

1. The Constitution of the Republic of the Marshall Islands
2. Marshall Islands Revised Code
3. National Strategic Plan
4. Public Service Act
5. Public Service Regulations
6. PSS Strategic Plan
7. Public School System Act 2013
8. Ministry of Education Rules and Regulations

4.0 POLICY

4.1 The collection of information from schools shall be done in an efficient and timely manner without hindering the learning and teaching process.

4.2 All school principals and head teachers with internet access shall upload their relevant school data into the MIEMIS database. Schools without internet access shall submit their data through the PSS radio net or through hard copies.

4.3 Assistant Associate Commissioners, by virtue of their supervisory roles and close relationships with their schools, shall ensure the timely submission of current, correct, and complete school data. They shall also vet and ensure accuracy of the data submitted by the schools.

4.4 Collection of data from schools:

1. Any ECE center, elementary, secondary, or vocational schools, whether government, non-government and chartered by the Ministry of Education is required to submit data to the MIEMIS database in a timely and efficient manner. This data includes student roster, staff roster, student transfers, student dropouts, daily attendance, school assets, and sanitation facilities and any data PSS requires.

2. Any tertiary education and TVET institutions are also required to submit data to the Information System Office.

3. The school principal or head teacher shall ensure that their school information being submitted strictly adheres to the guidelines and that the data is current, correct, and complete.

4. Schools shall upload or submit certain compulsory information on student registration in the respective fields provided either in the MIEMIS database or on the paper-based MIEMIS form.

5. All paper based MIEMIS questionnaire forms must address to the school's Assistant Associate Commissioners before due dates. All forms should go to the Information System Office.

4.5 Timelines:

1. The Information System Office shall ensure that all schools with internet access have the necessary school level user account before the start of the school year.

2. Assistant Associate Commissioners should collect required forms and distributed to their respective schools that have no access to the internet by the start of each school year.

3. All nine-week reports must go into the MIEMIS database, or submit a hard copy to the Policy and Planning Division through the Assistant Associate Commissioners. Dateline for submission of all nine-week reports for both public and non-public schools must be at the Information System Office no later than the SECOND week following the end of the reporting period.

4. All MISAT registration data for grades 3, 6, 8, 10, & 12 can directly enter into the MIEMIS database or submitted through hardcopy to the Policy & Planning Division through the respective Assistant Associate Commissioners before the first week of March of each school year.

5. All School Census data directly enter into the MIEMIS database or submitted through hardcopy to the Policy and Planning Division through the respective Assistant Associate Commissioners before the first week of November of each school year.

6. The Information System Office, through the Assistant Associate Commissioners, shall inform school heads of non-submission or delayed submission of any school reports and the appropriate disciplinary measure.

4.6 Disciplinary Measures:

1. Disciplinary measures for school principals or head teachers submitting data after the set deadlines shall include suspension of hours worked or other disciplinary measures.

2. Disciplinary measures for non-public schools shall include suspension of aid funds.

3. For any user who deliberately corrupt or remove any data from the MIEMIIS database without authorization, or enter inaccurate data knowingly, their account may be suspended or removed and they may be subject to disciplinary procedures and or criminal charges.

4. Any authorize user who allows another person to log in to MIEMIS using his or her login details will have the account removed, and both users may also be subjected to disciplinary procedures and or criminal charges.

4.7 Approval to collect information:

1. All government and non-government organizations and individuals seeking school and other education information shall formally submit a written request with justification to the Associate Commissioner for Policy and Planning.

2. Approval of such request shall be at the discretion of the Associate Commissioner for Policy and Planning and the Commissioner of Education.

3. All approved requests shall be handled by the Policy & Planning Division and the appropriate response shall be provided as soon as practically possible.

4.8 Authorized Access to information in MIEMIS

1. Authorized non-school or PSS accounts will receive a username and password provided the approval of the Associate Commissioner for Policy & Planning.

2. Information System Office will manage school accounts, and school will manage their teacher accounts.

3. Authorized PSS users and other government officials, representatives of aid projects and other agencies who are working with the Public School System have only read access.

4. Two levels of access are provided for these authorize users: One level can view all data in the system; the other is prevented from viewing sensitive information.

5. At the school level, the main school user has write access and can edit and view all records, including student records.

6. The Information System Office is responsible for promptly deactivating MIEMIS user accounts for any school head who leaves a school. The Information System Office is also responsible for issuing user account a password for a new school head, as soon as he or she assumes duty.

7. For newly established schools, the Assistant Associate Commissioners, with assistance from the Information System Office, must provide the necessary advice on using the MIEMIS database and the MIEMIS data collection forms before the start of the school year.

4.9 All taining needs related to MIEMIS shall be the responsibility of the Policy and Planning Division of the Public School System.

5.0 OWNERSHIP OF MEIMIS DATABASE

5.1 Ownership of the MIEMIS database software and servers resides solely with the Marshall Islands Public School System.

6.0 TERMS

6.1 Marshall Islands Education Management Information System (MIEMIS):

MIEMIS is a database of school, student, teacher and other information that simultaneously meets a range of PSS needs and is accessible to all levels of the Ministry. The uses of MIEMIS database includes

6.1.1 The regular reporting on a needs basis, to Government on its major policy objectives and performance indicators for Education
6.1.2 Reporting to Government, the Policy & Planning Division, Annual Report on a range of indicators
6.1.3 Providing information to Policy and Planning Division to enable them to carry out their operational work effectively and efficiently
6.1.4 Providing information to PSS Management to assist with decision making and planning
6.1.5 Providing information to schools to assist with their decision making and planning

6.2 Non-public school

6.2.1 A religiously or community group- supported school, under college grade, whether or not it receives or has received financial assistance from the Government in accordance with Article II, Section1(3) of the Constitution any other school, under college grade, which normally charges tuition or other fee for attendance. (14 MIRC Ch.3 §302)

6.3 School Year

6.3.1 The school year shall consist of no less than one hundred eighty five (185) days of school in session, exclusive of holidays provided that any increase thereof of days shall be made pursuant to the promulgation of regulation under Section 346 and in consultation with the schools. Each of the school in the Republic may, with the approval of the Board establish beginning and ending dates of the school year in accordance with local needs and customs. Such dates need not be uniform throughout the Republic. (14 MIRC Ch.3 §317)

6.4 Structured Query Language (SQL)

It is a computer language designed for users to formulate complex requests for specific data in a relational database management system.

6.5 Users with Read Access, Users with Write Access

6.5.1 Users with *read access* to data can view it but not change it in any way. Users with *write access* to data can view and change data, including entering and deleting data

6.6 Transfer Students

6.6.1 Student who migrate between schools. There are two types of student transfers, transfer in are student who transfer from another school in country or out, and transfer out are student who leave the school to another school within or outside of the republic.

6.7 Repeater

6.7.1 A repeater is a pupil who, in a given school year, remains in the same grade as in the previous school year(s).

6.8 Dropout

6.8.1 The PSS Board of Education defines dropout as a student who leaves school for any reason, other than death, prior to graduation or completion of a course of studies and without transferring to another school or institution.

6.8.1.1 Attendance: Any student acquiring twenty (20) absences, excused or unexcused, will be dismissed from school for the remainder of the school year

6.8.1.2 transferred to another school or moved to another country without properly executing the transfer procedure before exiting the school

6.8.1.3 leaves school and enrolls in adult education or a program preparing for the GED (General Educational Development) exam

6.8.1.4 Is not temporarily absent due to suspension, long-term illness, or other emergency.

7.0 APPROVAL

Approved:

Chairman, National Board of Education — Aug. 21, 2017 — date

Minister of Education — Aug. 08, 2017 — date

Appendix A: Key Performance Indicators

No.	Focus Area	National, Regional & International Indicators	Data disaggregated	Data source
1	**Access**	Number of Primary and Secondary Schools	By Public/Private and by geographic location	School register, school survey or census for enrolment
1b	**Facilities**	Water, sanitation, and hand washing facilities	By Public/Private, gender and by geographic location	School register, school survey or census for infrastructure, hygiene, resource
1c	**Quality**	Accreditation status of schools	By year	Accreditation database
2a	**Access**	Enrollments	By Public/Private, gender and by geographic location	School register, school survey or census for enrolment
2b	**Equity**	Enrollment in Special Education	By School level, gender and geographical location	Special Education Database
3	**Access**	Enrollment trends	longitudinal and by rural/urban shifts	School register, school survey or census for enrolment
4	**Provision**	Multi-grade teaching schools	By Geographic Location	School register, school survey or census for enrolment
5a	**Access**	Base populations of school age children	By age groups	HIES, population census or estimates.
5b	**Access**	Gross Enrollment Rate	By School level, gender and geographical location	School register, school survey or census for enrolment; population census or estimates.
5c	**Access**	Net Enrollment Rate	By School level, gender and geographical location	School register, school survey or census for enrolment; population census or estimates.
5d	**Access**	Gross Enrollment Rate for Early Childhood	By gender	School register, school survey or census for enrolment; population census or estimates.
6	**Internal Efficiency**	Average student daily attendance rate	By School level, gender and geographical location and total	9 Week Report
7a	**Internal Efficiency**	Completion/Graduation Rate	By School level and gender	9 Week Report
7b	**Internal Efficiency**	Dropout Rate	By School level and gender	9 Week Report
7c	**Internal Efficiency**	Repetition Rate	By Gender and Grade Level	School register, school survey or census for enrolment

8	**Internal Efficiency**	Percent of 8th Graders going to secondary school	By Public/Private, gender and by geographic location	9TH Week Report
9	**Resources**	Number of computers per student	By School and Geographic location	School register, school survey or census for enrolment
10	**Resources**	Student to Textbook Ratio	By Subject area, School, and Grade Levels	School register, school survey or census for enrolment
11a	**Management**	Per Pupil Expenditure	By School level and Public/Private	Performance Base Budget Report
11b	**Management**	Educational Expenditure as % of Global Budget	By School Level	Performance Base Budget Report
12	**Management**	Number and Types of Community and Parental involvement activities	By School Level	Accreditation database
13	**Quality**	Student Teacher Ratio	By Primary/Secondary, Public/Private, and by Geographic Location	School register, school survey or census for enrolment
14	**Quality**	Number and Percent of Teacher Educational Levels	By Public/Private, Excluding Volunteers	TSL, and Staff Development
15a	**Quality**	Number and Percent of Teacher Certification Levels	By Public/Private, Excluding Volunteers	TSL, and Staff Development
15b	**Quality**	Number and Percent of Teacher Volunteers	By Volunteer Type	TSL, and Staff Development
16	**Outcome**	High School Graduates going to CMI & Other Colleges		Scholarship, CMI, USP
17	**Outcome**	Enrollment at post-secondary institutions	By Major, and year	Scholarship, CMI, USP
18	**Outcome**	Post-Secondary Graduates	By School, Gender, and Area of Study	Scholarship, CMI, USP
19	**Outcome**	CMI admission	By Entry Level to CMI, Public/Private, and Gender	CMI
20	**Outcome**	MISAT Scores for Grades 3, 6, 8, 10, & 12	By Subject area and year	MISAT

Appendix B: Definitions of Indicators

Indicator 1: Number of Primary and Secondary Schools
Definition: Number of primary and secondary schools
Purpose: To show the number of schools types throughout the republic
Calculation method: No calculations needed
Data required: Number of schools
Data source: PSS MIEMIS
Disaggregation: By school type (public/private) and by location (urban/rural)
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 1b: Water, Sanitation, and hand washing facilities (WASH)
Definition: The number of schools in the formal education sector (primary and secondary) that have been assessed by education authority to have clean water and sanitation system.
Purpose: This Indicator conveys information on the extent to which schools meet the required standard of cleanliness of their water and sanitation system. Minimum standards shall be set according to public health's standards of cleanliness.
Calculation method: Divide the number of schools in the formal education sector (primary and secondary), certified as having clean water and sanitation system by the number of primary and secondary schools in school-year t, and multiply by 100.
Formula: $\%\mathbf{WASH}^{t}_{h,w/s)} = \frac{\mathbf{E}^{t}_{h,w/s}}{\mathbf{T}^{t}_{h}}$ x 100, where;
$\%\mathbf{WASH}^{t}_{h,w/s}$ Percentage of primary and secondary schools *h* assessed as having clean water and sanitation *w/s* in school year *t.*
$\mathbf{E}^{t}_{h,w/s}$Number of primary and secondary schools *h* assessed as having clean water and sanitation in school year *t.*
$\mathbf{T}^{t}_{h}$ Total number of schools *h* in formal sector (primary and secondary) in school-year *t*.
Data required: Number of primary and secondary schools assessed to have clean water and sanitation in schools year *t*. Total number of primary and secondary schools in school-year *t*.
Data source: PSS school census
Disaggregation: Data collected for this indicator will be disaggregated by level (primary/secondary) as well as by geographical location (urban/rural) and education authority (public/private)
Interpretation: A high percentage of the indicator demonstrates the high proportion of schools being assessed as meeting the relevant standards of cleanliness for water and sanitation. Schools that fail to meet the required standard runs the risk of the school being closed until the minimum standard of cleanliness for water and sanitation are met.
Quality standards: It is important that the correct data is collected especially in terms of the required standard considering the likely consequences of not meeting the standard. To have the correct data, it is important for the school to be aware of the minimum standards.
Limitations: Accuracy surrounding the data, especially the standards of cleanliness of both water and sanitation. School needs to be clear of such standards so it can ensure compliance at all times.

Indicator 1c: Accreditation status of schools by years
Definition: The number of schools in the formal education sector (primary and secondary) by accreditation levels as assessed by the PSS accreditation office according to PSS accreditation standards.
Purpose: To see the level of improvement by schools.
Calculation method: No calculation needed
Data required: Number of primary and secondary schools in school-year *t*. Number of primary and secondary schools assessed at each level in school-year *t*.
Data source: School records, accreditation database
Disaggregation: By school level (primary/secondary) and education authority (public/private)
Interpretation: NA

Quality standards: NA
Limitations: NA

Indicator 2a: Enrollments by Elementary/Secondary, Public/Private, Gender, and by geographic area.
Definition: Total number of male & female who are in school in both primary and secondary schools.
Purpose: This is used to measure the number of students enrolled in formal education.
Calculation method: No calculation needed.
Data required: Number of students enrolled at formal education sector (primary and secondary) in school-year *t*.
Data source: Student roster, School census
Disaggregation: By grade level & gender, school authority type (public/private) and by geographical location (urban/rural).
Interpretation: NA
Quality standards: NA
Limitations: The accuracy of this indicator depends entirely on reliable and accurate submission of school data by school heads.

Indicator 2b: Enrollments of Children with Special Needs (CSN)
Definition: The number of children with special needs (or disabilities; physical, mental, or other disabilities) who are enrolled in normal schools in the formal education sector. In the context of this indicator, children with special needs refer to children with physical as well as mental disabilities. It excludes children with no disability who are slow learners
Purpose: This indicator conveys information on the proportion of children diagnosed as having special needs (or disabilities) who are enrolled in schools in the formal education sector, together with children with no physical or mental disabilities. It provides information on how inclusive the education system is in providing same quality education to normal children as well as children with special needs.
Calculation method: Divide the number of children diagnosed as having special needs (disabilities) enrolled in normal schools in the formal education sector (primary and secondary) by the total number of children enrolled in a given school year in the formal education sector, and multiply by 100.
Formula: $\%\mathbf{CSN}_{p/s}^{t} = \frac{\mathbf{E}_{p/s}^{t}}{\mathbf{T}^{t}}$ x 100, where;
$\%\mathbf{CSN}_{p/s}^{t}$ Percentage of children with special needs enrolled in primary and secondary schools *p/s* in a school-year *t.*
$\mathbf{E}_{a}^{t}$ Number of children with special needs enrolled in primary and secondary schools *p/s* in school-year *t*.
$\mathbf{T}^{t}$ Total number of students enrolled in primary and secondary in school-year *t.*
Data required: Number of students enrolled at formal education sector (primary and secondary) in school-year t. Number of special education students at formal education sector.
Data source: School register, school census, special education database
Disaggregation: by school level (primary/secondary), gender (male/female), and geographical location (urban/rural).
Interpretation: High percentage of enrollment of children with special needs indicate how inclusive the formal education system is. A low percentage indicates limited opportunities provided by the system for children with special needs. Data could also be interpreted by gender, school location as well as education authority.
Quality standards: This indicator should be based on reliable data from schools in terms of the number of children with special needs in the school. Effort should be made to clarify the boundaries for those children labelled as those with special needs as this may affect the quality of the data.
Limitations: This indicator can be distorted by ambiguity in terms of those categorized as special needs or children with disabilities. Caution should be used in interpreting the data to ensure that there is no confusion on those considered to be children with special needs.

Indicator 3: Enrollment Trends
Definition: Total number of enrollment in formal education (primary and secondary) dating back five years or more.
Purpose: To see fluctuation in student enrollment over a period of several years.
Calculation method: No
Data required: Enrollment
Data source: School register

Disaggregation: by longitudinal (five years or more) and geographical location (urban/rural).
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 4: Number of multi-grade teaching elementary schools
Definition: Schools with five or less teachers.
Purpose: Multi-grade teaching is very challenging. Multi-grade schools face a different set of unique challenges, and usually perform poorly on assessments compared to non-multigrade schools.
Calculation method: Number of schools with five or less teachers
Data required: Number of multi-grade schools.
Data source: School census
Disaggregation: by geographical location (urban/rural)
Interpretation: Multi-grade schools need to be identified and their unique challenges addressed.
Quality standards: NA
Limitations: NA

Indicator 5a: Base population of school age children
Definition: The number of children age 6 – 18 at the beginning of the school year.
Purpose: To know the number of children that the school system needs to provide education services to.
Calculation method: Based on population estimates provided by National Statistics Office or SPC.
Data required: RMI population census.
Data source: school census, population projection
Disaggregation: by age groups
Interpretation: NA
Quality standards: NA
Limitations: Standard limitations of population estimates and projections

Indicator 5b: Gross Enrollment Rate
Definition: Total enrolment for the elementary and secondary schools, regardless of age, expressed as a percentage of the official age-group for the corresponding population.
Purpose: Gross Enrolment Ratio is commonly used to show the participation rate in schools. It indicates the capacity of the education system to accommodate participation with enrolments not restricted to the official age group in that particular year. It is used as a substitute indicator to net enrolment ratio (NER) when data on enrolment by single years of age are not available. Furthermore, it can also be a complementary indicator to NER by indicating the extent of over-aged and under-aged enrolment in the education sector.
Calculation method: Divide the number of students enrolled in the education sector, regardless of age, by the population of the official age group for the education sector and multiply the result by 100.
Formula: $\mathbf{GER}^{t}_{Es} = \frac{\mathbf{E}^{t}_{Es}}{E\ s}$ X 100, where;
$\mathbf{GER}^{t}_{Es}$ Gross Enrolment Ratio for education sector in school-year *t.*
$\mathbf{E}^{t}_{Es}$ Enrolment for formal education sector in school year *t.*
$P^{t}_{a,\ ECE}$ Population of age-group *a* for education sector in school year *t*.
(Example: If the entrance age for the education sector is 5 years with a duration of schooling of 12 years then a is (12) years).
Data required:
1. Total enrolment for elementary and secondary schools in the education sector, disaggregated by gender and vulnerable/disadvantaged. Additional disaggregation include; location, authority and PES (Parent Employment Status) as a function of disadvantaged and vulnerable population.
2. Population of school age children.
Data source:
1. School register, school survey or census for data on enrolment for the education sector.
2. Population censuses or estimates for school-age population normally obtained from the National Statistical Office.

Disaggregation: Data collected for this indicator will be disaggregated by gender (males/female). Additional disaggregation may include geographical location (urban/rural), and education authority (public/private).
Interpretation: A high GER generally indicates a high degree of participation in the education sector. A GER value of 100% indicates the capacity of country to allow full participation in the education sector. The achievement of a GER of 100% is an essential marker for full participation but not sufficient condition to express enrolment for all eligible children of the official age. GER has potential to exceed 100% indicating the extent of under-aged and over-aged enrolling in the sector in any particular year.
Quality standards: GER for the education sector should be based on the total enrolment in all types of schools and education institutions, including public, private and all other institutions that provide organized educational programs.
Limitations: GER can be over 100% due to the inclusion of over-aged and under-aged students/students because of early or late entrants, and grade repetition. In this case, a more rigorous interpretation of GER requires a wider source of additional information to assess the extent of repetition, late entrants, etc.

Indicator 5c: Net Enrollment Rate
Definition: Enrolment of the official age group for the education sector expressed as a percentage of the corresponding population.
Purpose: To show the extent of participation in the education sector of children belonging to the official age group. As participation increases in the education sector, there is increasing need to know the participation of children from marginalized, vulnerable and disadvantaged communities.
Calculation method: Divide the number of students enrolled in the education sector that are of the official age group by the total population for the same age group and multiply the result by 100.
Formula: $\boldsymbol{NER}^{t}_{ece} = \frac{E^{t}_{a,ece}}{P^{t}_{a,ece}}$ X 100, where
$\boldsymbol{NER}^{t}_{ece}$ Net Enrolment Ratio for early childhood and education sector for school year *t*
$\boldsymbol{E}^{t}_{a,ece}$ Total enrolment of age-group *a* for the early childhood and education sector in school year *t*
$\boldsymbol{P}^{t}_{a,p/s}$ Total population for age-group *a* for the formal education sector in school year *t*
Example: If the entrance age for early childhood and education sector is 5 years with a duration of schooling of 12 years then a is (12) years.
Data required:
1. Enrolment by single years of age for the education sector disaggregated by gender, as well as location and authority.
2. Population of the age group corresponding to the education sector disaggregated by gender, location and authority.
Data source:
1. School register, school survey or census for disaggregated data on enrolment in school by age
2. Population censuses or estimates for education sector by school-age population normally obtained from the National Statistical Office and EMIS.
Disaggregation: Data collected for this indicator are disaggregated by gender (males/female). Additional disaggregation may include geographical location (urban/rural) and education authority (public/private).
Interpretation: A high NER denotes a high degree of participation of the official school-age population for the education sector. The theoretical maximum value is 100%. Increasing trend in NER reflects improving participation in the education sector. The difference between NER and GER highlights the incidence of under-aged and over-aged enrolment. If the NER is below 100%, then the complement, i.e. the difference with 100% provides a measure of the proportion of children of the school official age not enrolled in the education sector.
Quality standards: NER for the education sector should represent the accumulated total enrolment for all schools (public or private).
Limitations: Although the NER cannot exceed 100%, values up to 105% could be obtained indicating inconsistencies in the enrolment and/or population data.

Indicator 5d: Gross Enrollment Rate for Early Childhood Education (4 - 5 year olds) by gender.
Definition: Total enrolment for early childhood, regardless of age, expressed as a percentage of the official age-group for the corresponding population.
Purpose: Gross Enrolment Ratio is commonly used to show the participation rate in schools. It indicates the capacity of the education system to accommodate participation with enrolments not restricted to the official age group in that

particular year. It is used as a substitute indicator to net enrolment ratio (NER) when data on enrolment by single years of age are not available. Furthermore, it can also be a complementary indicator to NER by indicating the extent of over-aged and under-aged enrolment in the early childhood education sector (ECE).
Calculation method: Divide the number of students enrolled in the early childhood care (ECE), regardless of age, by the population of the official age group for ECE and multiply the result by 100.

Formula: $\mathbf{GER}^{t}_{ECE} = \frac{\mathbf{E}^{t}_{ES}}{Es}$ X 100, where;

$\mathbf{GER}^{t}_{ECE}$ Gross Enrolment Ratio for education sector in school-year *t.*
$\mathbf{E}^{t}_{ECE}$ Enrolment for early childhood education sector in school year *t.*
$P^{t}_{a,\ ECE}$ Population of age-group *a* for education sector in school year *t*.
(Example: If the entrance age for the education sector is 5 years with a duration of schooling of 12 years then a is (12) years).
Data required:
1. Total enrolment for early childhood education, disaggregated by gender and vulnerable/disadvantaged. Additional disaggregation include; location, authority and PES (Parent Employment Status) as a function of disadvantaged and vulnerable population.
2. Population of ECE age children.
Data source:
1. School register, school survey or census for data on enrolment for early childhood care (ECE).
2. Population censuses or estimates for school-age population normally obtained from the National Statistical Office.
Disaggregation: Data collected for this indicator will be disaggregated by gender (males/female). Additional disaggregation may include geographical location (urban/rural), and education authority (public/private).
Interpretation: A high GER generally indicates a high degree of participation in ECE. A GER value of 100% indicates the capacity of country to allow full participation in the education sector. The achievement of a GER of 100% is an essential marker for full participation but not sufficient condition to express enrolment for all eligible children of the official age. GER has potential to exceed 100% indicating the extent of under-aged and over-aged enrolling in the sector in any particular year.
Quality standards: GER for the ECE sector should be based on the total enrolment in all types of schools and education institutions, including public, private and all other institutions that provide organized educational programs.
Limitations: GER can be over 100% due to the inclusion of over-aged and under-aged students/students because of early or late entrants, and grade repetition. In this case, a more rigorous interpretation of GER requires a wider source of additional information to assess the extent of repetition, late entrants, etc.

Indicator 6: Average daily attendance by school level and Geographic Area and by gender and total.
Definition: Attendance rate of formal education sector (primary and secondary) expressed as a percentage.
Purpose: To show the extend of participation in formal education sector
Calculation method: Divide the number of aggregate absence by total number of school days and multiply by 100.
Data required: Average daily attendance
Data source: PSS 9th week report
Disaggregation: By education sector (primary and secondary, gender (male/female), and geographical location (urban/rural).
Interpretation: Higher attendance rate show more students show up to school every day.
Quality standards: This indicator should be based on data from the 9th week report.
Limitations: NA

Indicator 7a: Student Progress Rates: Completion or Graduation rate by gender and primary and secondary levels.
Definition: Number of students who complete or graduate last grades of formal education (8th grade and 12th grade)
Purpose: NA
Calculation method: NA
Data required:
Number of students who graduated/completed
Number of repeaters
Data source:

School register, 9th week report
Disaggregation: by gender, authority type (public/private) and geographical location (urban/rural).
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 7b: Dropout rate (DR).
Definition: Proportion of students from the formal education sector (primary and secondary) cohort who leave the school system throughout the twelve months of a given school-year.
Purpose: It measures the phenomenon of students from the formal education sector (primary and secondary) who leave the system during a given year t, and its effect on the internal efficiency of the educational system. In addition, it is one of the key indicators for analyzing and projecting student flows from grade to grade throughout the formal education sector (primary and secondary) within the educational cycle.
Calculation method: Divide the number of students from the formal education sector (primary and secondary) who dropped out during school year t by the number of students who enrolled at the formal education sector during school year t multiplied by 100.
Formula:
$\mathbf{DR}^{t}_{p/s} = \frac{\mathbf{D}^{t}_{p/s}}{\mathbf{E}^{t}_{p/s}}$ x 100, where;
$\mathbf{DR}^{t}_{p/s}$ Dropout rate (DR) for the formal sector *p/s* (primary and secondary) throughout school-year *t.*
$\mathbf{D}^{t}_{p/s}$ Total number of students who dropped out from the formal education sector *p/s* (primary and secondary) during school-year *t*
$\mathbf{E}^{t}_{p/s}$ Number of students enrolled in the formal education sector *p/s* (primary and secondary) in school-year *t*.
Data required:
Enrolment for the formal education sector (primary and secondary) for school-year *t* disaggregated by gender, location and authority.
Number of dropouts from the formal education sector (primary and secondary) for school-year *t* disaggregated by gender, location and authority.
Data source:
School register, school survey or census for primary and secondary on enrolment and dropouts for all grades in school year *t*. National EMIS.
Disaggregation: Data collected for this indicator will be disaggregated by gender (males/female), geographical location (urban/rural) and education authority (public/private). Data also disaggregated by education level (primary/secondary) to avoid treating them as separate indicators.
Interpretation: Dropout Rate for the formal education sector (both primary and secondary) ideally should approach zero percent; a high dropout rate in the formal education sector (both primary and secondary) reveals problems in the internal efficiency of the educational system in retaining students throughout primary and secondary. When compared across grades, the patterns can indicate specific grades for which there is higher dropout (for primary, secondary or both), hence requiring more in depth study of causes and possible remedies to minimize dropouts. This indicator should be interpreted in conjunction with the dropout rates for primary and secondary.
Quality standards: Like other student-flow rates (promotion and repetition rates), the dropout rate is derived by analyzing data on enrolment and dropouts by grade and overall throughout the formal education sector (primary and secondary). One should therefore ensure that such data are consistent in terms of coverage over time and across grades. Special attention should also be paid to minimizing some common errors which may bias these flow-rates, such as those with status 'Unknown' or even those with status 'Dropout' may include those who transfer to other schools but recorded as dropouts. High dropout rate, especially at the end could be considered as a measure of the success of the education system as it includes those graduating from each level. High dropout rates could also be an indication of potential risk of future problems such as unemployment, poverty, etc.
Limitations: The level and total number of dropouts in the formal sector (primary and secondary) may actually be 'push outs' due to limited places available and are therefore categorized as dropouts. Care should be taken in interpreting this indicator.

Indicator 7c: Repetition rate (RR)

Definition: Proportion of students from a cohort enrolled in a given grade at a given school-year who study in the same grade in the following school-year.

Purpose: It measures the phenomenon of students from a cohort repeating a grade in formal education sector (primary and secondary), and its effect on the internal efficiency of educational systems. In addition, it is one of the key indicators for analyzing and projecting student flows from grade to grade within the educational cycle.

Calculation method: Divide the number of repeaters in a given grade in the formal education sector (primary and secondary) in school-year t+1 by the number of students from the same cohort enrolled in the same grade in the previous school-year t and multiply the result by 100.

Formula:

$\mathbf{RR}_i^t = \frac{\mathbf{R}_i^{t+1}}{\mathbf{E}_i^t}$ x 100, where;

$\mathbf{RR}_i^t$ Repetition Rate at any grade *i* in the formal sector (primary or secondary) in school-year *t.*

$\mathbf{R}_i^{t+1}$ Number of students repeating at grade *i* in the formal sector (primary or secondary), in school-year *t+1.*

$\mathbf{E}_i^t$ Number of students enrolled in grade *i* in the formal sector (primary or secondary) in school-year *t*.

Data required:

Enrolment by grade in the formal education sector (primary and secondary) for school-year t disaggregated by gender, location and authority.

Number of repeaters from the same cohort by grade for year t+1 disaggregated by gender, location and authority.

Data source: School register, school survey or census for disaggregated data on enrolment and repeaters by grade.

Disaggregation: Data collected for this indicator is disaggregated by gender (males/female). While the data can also be disaggregated by geographical location (urban/rural), education authority (government/non-government) and by education level (primary/secondary), one needs to consider how useful the disaggregated data are. This avoids having to treat RR for primary and secondary as separate indicators.

Interpretation: Repetition Rate ideally should approach zero percent; a high repetition rate reveals problems in the internal efficiency of the educational system. When compared across grades, the patterns can indicate specific grades for which there is higher repetition, hence requiring more in depth study of causes and possible remedies.

Quality standards: Like other student-flow rates (promotion and drop-out rates), the repetition rate is derived by analyzing data on enrolment and repeaters by grade for two consecutive years. One should therefore ensure that such data are consistent in terms of coverage over time and across grades. Special attention should also be paid to minimizing some common errors which may bias these flow-rates, such as: Over-reporting enrolment/repeaters (particularly in grade one); incorrect distinction between new entrants and repeaters; transfers of students between grades and schools.

Limitations: The level and maximum number of grade repetitions allowed can in some cases be determined by the educational authorities with the aim of coping with limited grade capacity and increasing the internal efficiency and flow of students. Care should be taken in interpreting this indicator, especially in comparisons between education systems.

Indicator 8: Percent of 8th graders enrolling in secondary schools

Definition: Number of 8th graders who scored the minimum needed to enroll at public high schools.

Purpose: This is another measure of the efficiency of the elementary schools in preparing students for high schools.

Calculation method: Divide the number of 8th graders who made the cut off score by the total number of enrolled 8th graders.

Data required:

Total number of 8th graders enrolled in school-year t.

MISAT scores

Data source: 9th week reports and MISAT data.

Disaggregation: Data collected for this indicator will be disaggregated by gender (males/female), geographical location (urban/rural) and education authority (public/private). Data also disaggregated by education level (primary/secondary) to avoid treating them as separate indicators.

Interpretation: NA

Quality standards: NA

Limitations: NA

Indicator 9: Student to Computer Ratio

Definition: Average number of computers available in the school for the use of students at the formal education sector (primary and secondary) in a given school-year. Computers used purely for administrative purposes and not available for use by students should not be included. Only those that are available for the use by students.

Purpose: This indicator is used to measure the level of access of students to computers in the school to help them in their learning in the school. It is part of the physical resources input in terms of number of computers available per student in relation to the size of the student population in primary and secondary education. It should normally be used to compare with established national norms (if one exists) on the number of students per computer available for primary and secondary education.

Calculation method: Divide the total number of students enrolled in primary and secondary by the number of computers available for the use of teachers and students in the teaching and learning.

Formula:

$\mathbf{SComR}_h^t = \frac{\mathbf{E}_h^t}{\mathbf{T}_h^t}$ x 100, where:

$\mathbf{SComR}_h^t$ Student-Computer ratio at the formal education sector *h* (primary and secondary) in school-year *t*

$\mathbf{E}_h^t$ Total number of students at the formal education sector *h* in school-year *t*

$\mathbf{T}_h^t$ Total number of computers available for students in primary and secondary education *h* in school-year *t.*

Data required:

Number of students enrolled at formal education sector (primary and secondary) in school year t.

Number of Computers available for students at the same level in school year t.

Data source:

1. School records and inventory,
2. Teacher records,
3. School census and surveys
4. MIEMIS data; student enrolment and number of computers in each school throughout primary and secondary education

Disaggregation: Data is disaggregated by education level (Primary/secondary) as well as by location and authority.

Interpretation: A high student-computer ratio suggests that there may be insufficient availability of computers for students. This suggests that students may not have access to computers as a tool to support their learning. Data collected is used to compare the access to computer situation between schools in urban and those in rural locations as well as government and non-government schools in both primary and secondary education.

Quality standards: In computing and interpreting this indicator, one should take into account the various uses of the computers by students.

Limitations: This indicator does not take into account the different situations in rural school where some are 'remote' with only basic resources. The situation is worsened if remote schools do not have access to computers at all.

Indicator 10: Student to textbook ratio

Definition: Average number of textbooks available overall in both primary and secondary schools for the use of students in a given school-year. Textbook is defined as a book prescribed by the teacher as a compulsory text or recommended text for the use of students in any subject. This does not include library books that students borrow from the library for leisure reading unless identified by the teacher as a recommended text.

Purpose: This indicator is used to measure the level of physical resources input in terms of number of textbooks available per student in relation to the size of the student population in the formal education sector. It should normally be used to compare with established national norms (if one exists) on the number of students per textbooks available for primary and secondary as a whole.

Calculation method: Divide the total number of students enrolled in both primary and secondary by the total number of prescribed textbooks available at the same level in a given year.

Formula:

$\mathbf{STxR}_h^t = \frac{\mathbf{E}_h^t}{\mathbf{T}_h^t}$ x 100, where;

$\mathbf{STxR}_h^t$ Student-textbook ratio in formal education sector (primary and secondary education *h* in school-year *t*

$\mathbf{E}_h^t$ Total number of students in formal education sector (primary and secondary) *h* in school-year *t*

$\mathbf{T}_{h,u}^{t}$ Total number of textbooks available for students enrolled in formal education sector *h* (primary and secondary) in school-year *t.*

Data required:

1. Number of students enrolled in formal sector (primary and secondary education).
2. Number of prescribed textbooks available for students in primary and secondary in the same year.

Data source: School records and inventory, teacher records, school census, surveys or EMIS for data on; student enrolment and number of textbooks in each school.

Disaggregation: Data is disaggregated by education level (primary/secondary) as well as by location and by authority.

Interpretation: A high student-textbook ratio suggests that there may be insufficient availability of textbooks for students. This suggests that students are either sharing or some do not have access to prescribed textbooks which could hinder their ability to perform. Data collected is used to compare the textbook situation between schools in urban and those in rural locations as well as those in government and those in non-government schools.

Quality standards: In computing and interpreting this indicator, one should take into account the access to internet as it may minimize the reliance on textbooks.

Limitations: This indicator does not take into account the different situations in rural school where some are 'remote' with only basic resources. The situation is worsened if remote schools do not have access to internet.

Indicator 11a: Per pupil expenditure

Definition: The average education expenditure per pupil in a country for a given year.

Purpose: This indicator assesses the average education expenditure for each pupil in a country in a given year. The data collected gives an idea of how much of the education budget, both development and recurrent, is spend on every pupil at each level of education. Such information is useful especially in trying to see where current resources are allocated and where future investment may be required.

Calculation method: Divide a country's total expenditure in education for a given year by the total number of pupils in education for the same year. For each level of education however, divide the total expenditure in education by the total number of pupils for the level of education in the same year.

Formula:

$\mathbf{Av}(\mathbf{EE})_{p/p}^{t} = \frac{\mathbf{EE}_{n}^{t}}{\mathbf{N}^{t}}$, where

$\mathbf{Av}(\mathbf{EE})_{p/p}^{t}$ Average education expenditure *(AvEE)* per pupil *p/p* in a country for a given year *t*.

$\mathbf{EE}_{n}^{t}$ The total Expenditure in Education for a country in a given year *t.*

$\mathbf{N}^{t}$ Total number of pupils in education for given year *t.*

Data required:

1. Annual National Recurrent and Development Expenditures of a country in education in a given year t.
2. Total number of pupils at all levels of education in a country for year *t*.

Data source:

1. Ministry of Finance annual National Recurrent and Development Expenditure document for financial year t.
2. PSS MIEMIS

Disaggregation: Disaggregated by level of education (ECCE/Primary/Secondary/Post-Secondary-TVET/Tertiary).

Interpretation: Interpretation of the data focuses on the average resources available and spending per pupil in a given year. The higher the amount does not indicate higher spending per pupil but rather higher amount of resources available to be spend in education. The lower the amount indicates limited or insufficient resources for education. Disaggregated data also provides additional information on the resources available and spending at each level of education. This allows decision makers to consider where more resources needed to be channeled.

Quality standards: Although there is no clear standard or benchmark in terms of amount to be spend in education per pupil, it is generally accepted that the higher the amount of education expenditure per pupil, the more likely the country is able to achieve its education goals.

Limitations: Ensuring availability of valid and reliable data in terms of the number of pupils in education remains a challenge and would raise doubts unless countries have a vibrant and up-to-date EMIS system on pupil enrolment at all levels of education. Accuracy of figures on education expenses is also an issue.

Indicator 11b: Educational expenditure as a % of Gross National Income (GNI)

Definition: The percentage of the Gross National Income (GNI) of a country in a given year that is spend in education.

Purpose: This indicator assesses and monitors the proportion of the total national income of a county that is spend in education. It is usually expressed in a single currency with the dollar value of a country's income often expressed on a per capita basis.
Calculation method: Divide a country's Total National Expenditure in Education in a given year by its Gross National Income for the same year, multiply by 100.
Formula:

$\%\ \mathbf{NEE}^{t}_{GNI} = \frac{\mathbf{NEE}^{t}}{\mathbf{GNI}^{t}}$ x 100, where

$\%\ \mathbf{NEE}^{t}_{GNI}$ Percentage of the national GNI of a country spend in education in year *t*.
$\mathbf{NEE}^{t}$ The total National Expenditure in Education for a country in a given year *t.*
$\mathbf{GNI}^{t}$ Gross National Income of a country in a given year *t*
Data required:
1. Annual National Recurrent and Development Expenditures of a country in education in a given financial year t.
2. Gross National Income for a country for year *t*.
Data source:
1. Ministry of Finance annual report on National Recurrent and Development Expenditure for financial year t.
2. Ministry of Education annual report for financial year *t*.
3. Bureau of Statistics Report for Year *t*
4. Ministry of Finance Annual Report for Year *t*.
Disaggregation: Disaggregated by level of education.
Interpretation: Interpretation of the data focuses on the level of government expenditure in the education sector in a given year relative to the overall income of the country. This is another indicator that monitors level of commitment of a government towards educating its people. The higher the percentage the higher the level of overall investment the country puts into educating its people. The lower the percentage indicates a low level of investment in education. Considering the link between a country's GNI and the quality of life of people, a high percentage investment of a country's GNI in education is associated with countries that have longer life expectancies, high literacy rates, better access to safe water, and lower infant mortality rates.
Quality standards: Although there is no clear standard or benchmark in terms of percentage of GNI spending in education, it is generally understood that high proportion of GNI spend in education is associated with high income countries.
Limitations: While the level of GNI of a country can be reliably calculated, determining the total spending in education often does not include in-kind spending through technical assistance and expert advice. This tends to raise doubts about the accuracy of the total spending in education.

12. Number and types of community and parental involvement activities per school per year.
Definition: Types of community and parental involvement in school activities.
Purpose: To gauge level of community involvement in education.
Calculation method: NA
Data required:
Number of community/parental activities
Types of activity
Data source: accreditation survey
Disaggregation: by school level (primary/secondary)
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 13: Student to teacher ratio (STR)
Definition: Average number (class size) of students per teacher in education sector in a given school-year. Teachers' occupation involves the transmitting of knowledge, attitudes and skills that are stipulated in a prescribed curriculum program to students enrolled in early childhood care and education sector.

Purpose: This indicator is used to measure the quality of the school system as a function of reduced class size against teacher participation and increasing interaction between teacher and pupils. A low ratio indicates increasing level of participation. The ratio of student to teaching staff can also indicate the extent of human resources devoted to the education sector.
Calculation method: Total number of students divided by number of teachers.
Formula:
STR = (S/T) X 100, where

S = Total number of students enrolled
T = Total number of teachers

Data Required:
1. Number of students enrolled in school year t.
2. Full – time teaching staff (primary and secondary).
Data source: MIEMIS, School registers, teacher records, school census or surveys for data on enrolment and teaching staff.
Disaggregation: Data is disaggregated by school level, geographical location (urban/rural) and authority (government/non-government).
Interpretation: A high student-teacher ratio suggests that there are a larger number of students being managed by an individual teacher. A higher the student/teacher ratio associates with a much lower access of students relative to the teacher. Generally, a low student-teacher ratio signifies smaller classes, which enables the teacher to pay more attention to individual students, which may in the long run result in a better student performance.
Quality standards: High turn-over of teachers in the education sector is a factor that may compromise the quality of data collected on teachers. It is not unusual to have more than three teachers teaching one class in a term. Data collected must go through rigorous verification to accurately establish the number of teachers teaching in an academic year.
Limitations: Although the ratio is an indicator of quality the assumption of lower class size increases teacher participation and interaction, does always guarantee better performance. Factors that contribute to quality such as qualifications of teachers, pedagogical training, experiences and status, teaching methods, teaching materials and variations in classroom conditions have not been addressed in this indicator.

Indicator 14: Number and percent of teacher by education levels (TEL)
Definition: Education level of teacher in formal education (primary and secondary) who have higher education degree/diplomas.
Purpose: This indicator conveys information on the proportion of the teaching force that possess the necessary qualifications and training for teaching.
Calculation method: Divide the number of teachers in primary and secondary that have satisfied the minimum qualifications required for a "Qualified/Trained" teacher as per national minimum standard, by the total number of teachers in primary and secondary education in a given year, and multiply by 100.
Required Data: Teacher educational background
Data source: Staff Development, HRM database
Disaggregation: Data is disaggregated by authority (public private) excludes volunteers.
Interpretation: NA
Quality standards: NA
Limitations: A

Indicator 15: Number and percent of teacher certification levels
Definition: Education certificate of teachers in formal education (primary and secondary)
Purpose: This indicator shows different levels of certification
Calculation method: Divide the number of teachers in primary and secondary that have satisfied the different certification levels, by the total number of teachers in primary and secondary education in a given year, and multiply by 100.
Data required: Certifications data
Data source: Teachers Certification and Licensing Board office

Disaggregation: Data is disaggregated by authority (public private) exclude volunteers.
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 16: Number and percent of teacher volunteers
Definition: Number of volunteer teachers in formal education (primary and secondary)
Purpose: Show how many volunteer teachers there are in the system
Calculation method: NA
Data required: Volunteer teacher data
Data source: JICA, World teach, etc.
Disaggregation: by volunteer type
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 17: Enrollment at post-secondary institutions by majors
Definition: Number of student enrollment at post-secondary institutions by majors
Purpose: To see trends in post-secondary enrollments.
Calculation method: NA
Data required: College admission data
Data source: Scholarship office, CMI database
Disaggregation: by gender, field of study, and semester/school year
Interpretation: NA
Quality standards: NA

Indicator 18: Post-secondary graduates
Definition: Number and percent of post-secondary graduates from institutions of higher education in the Republic.
Purpose: To gauge trends in post-secondary education completion for RMI studennts
Calculation method: Number of graduates by institutions divided by total number of post-secondary graduates.
Data required: post-secondary graduate data
Data source: Scholarship office, CMI, USP, and other higher education institution within the republic
Disaggregation: by Institution, gender, and field of study
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 19: High school graduates entry level to CMI
Definition: Number of high school graduates from formal education (secondary education) entering CMI by admission levels.
Purpose: To gauge effectiveness of high schools in preparing students for post-secondary education.
Calculation method: Number of students admitted by admission levels divided by total number of students admitted to CMI.
Data required: placement levels for students entering CMI
Data source: CMI
Disaggregation: by entry levels by high schools
Interpretation: NA
Quality standards: NA
Limitations: NA

Indicator 20: MISAT Scores for Grades 3, 6, 8, 10, & 12
Definition: Results from MISAT test for Year/Grade 3, 6, 8, 10, & 12

Purpose: A measure of student achievement across these grade levels.
Calculation method: Percent proficiency levels provided by MISAT test results.
Data required: MISAT results
Data source: MISAT database
Disaggregation: by subject area and year
Interpretation: Student proficiency levels across school years provides a direct measure of the health of the education system.
Quality standards: NA
Limitations: Reliability measures of the MISAT tests impact the accuracy of this indicator.