

Government of Guyana

Ministry of Education

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SCHOOLS' FACILITIES STRATEGY

Design & Maintenance Policy and Standards for Secondary Education Facilities

A SECTION National Policy for Schools' Infrastructure Development and Maintenance

B SECTION: Technical Standards for Design and Maintenance of Education Facilities

- Non-Academic Education Standards for Secondary Schools
- Design Framework and Strategy
- Technical Standards of Building Characteristics and Utilities

C SECTION Policy, Planning & Maintenance of Education Facilities

- Maintenance Policy for Education Facilities
- Criteria framework for identification of construction & Maintenance
- Maintenance Standards & Guidelines for Education Facilities

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SECTION A

National Policy for Schools' Infrastructure Development and Maintenance

FOREWARD

This Policy Statement and Guidelines for School Infrastructure Development and Maintenance is derived from applicable laws of Guyana and the Education Sector Plan (ESP) 2021-2025 – vision 2023, "Providing opportunities for quality, equitable education and lifelong learning for all." which is aligned with United Nations Sustainable Development Goal 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Formal education, generally occurs within a school's physical infrastructure in a defined environment. The form, quality and existing environment of the physical facilities has significant impact on children's enrolment, attendance, completion rates and learning achievements.

Target 4a of Sustainable Development Goal, specifically emphasized the importance of building and upgrading education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

School infrastructure plays a vital role in providing access to quality education hence it is important that any infrastructure development in schools is adequately designed, constructed and maintained to create and retain a safe, comfortable and hygienic space, conducive teaching, learning and social interaction.

It is necessary to ensure that all school infrastructure is built according to an acceptable national architectural and engineering standard, that designs incorporate preparedness for natural and man-made hazards and incorporates the minimum standards of structural resilience in such events.

This Policy Statement and Guidelines for the School Infrastructure in Guyana is expected to raise the infrastructure quality and safety standards through the provision of appropriate and sustainable education infrastructure throughout the country and to increase the number of schools, classrooms, offices, specific classrooms, dormitories, toilets and water and sanitation facilities at the schools and establish the baseline standards for maintenance and sustainability.

*The Chief Education Officer
Ministry of Education*

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ACRONYMS AND ABBREVIATIONS

ADA	American Disability Standards for Accessible design 2010. Internationally recognized standards for design for persons with disabilities.
AC	Air Condition [Split or Wall Unit]
BS	British Standards
CARICOM	Caribbean Community
CC	Climate change.
CDC	Civil Defense Commission [Guyana].
CDEMA	Caribbean Disaster Emergency Management Agency.
CH	Ceiling Height
Dorms	Dormitory
DEO	District Education Officer
DCEO	Deputy Chief Education Office [Secondary]
DWG.	Drawing
DRM	Disaster risk management
GEA	Guyana Energy Agency
GFS	Guyana Fire Service
GoG	Government of Guyana
GL&SC	Guyana Lands and Surveys Commission.
GYD	Guyanese Dollar.
GIS	Geographic Information System
IBC	International Building Code
MOH	Ministry of Health
MOPW	Ministry of Public Works
MoE	Ministry of Education
MoE-HFLE	Ministry of Education – Health, Family life Education Department
NCRED	National Centre of Educational Resources Development
NDCs	Neighbourhood Democratic Councils
NPTAB	National Procurement and Tender Administration Board
OHS	Occupational Health & Safety
QA/QC	Quality Assurance / Quality Control management system.
RDC	Regional Democratic Council
REDO	Regional Education Officer
SDMP	School Disaster Management Plan
sf./ ft2 or sq.ft	Square Foot
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund

National Policy for Schools' Infrastructure Development and Maintenance

1.0 FRAMEWORK

1.1 Preamble

The National Policy for School Infrastructure Development and Maintenance (NPSIDM) is established to ensure the provision of adequate, safe, and modern infrastructure for educational institutions across Guyana. Recognizing the pivotal role of quality infrastructure in promoting effective learning environments and fostering educational excellence, this policy outlines a comprehensive approach to physical infrastructural development, maintenance, and upgrade to schools to meet modern educational standards and support the overall growth of Guyana.

1.2 Definition

This document is called the National Policy for School Infrastructure Development and Maintenance, also refers to as 'The Policy Statement'). It shall be the governing instrument for the planning, design, development, construction, rehabilitation, repair and maintenance of all school infrastructure.

1.3 Application

This policy applies to all educational facilities in Guyana, inclusive of public and private schools.

The Scope of this policy encompasses the planning, design, construction, maintenance, modifications and rehabilitation of educational facilities, to ensure uniformity of standards. This policy applies to school infrastructure development undertaken by all stakeholders in Guyana.

1.4 Purpose of Policy

The purpose of this policy statement is to:

PROMOTE

- The principle that all children, including those with mobility and learning challenges, to have equal access to safe, healthy, comfortable and well-maintained educational facilities;
- Local community participation and inclusion in the development and sustainability of the education planning, development and sustainability. This is to ensure that education facilities meet the unique needs and preferences of the local community while fostering community engagement and support.

PROVIDE

- Strategic direction to technical and management education officials and private sector operators on the design and maintenance of school infrastructure;

ENSURE

- School infrastructure, support the implementation of Education Sector Vision 2030, The Education Sector Plan 2021-2025 and aligned with the plans of the Government of Guyana and its regional and international partners for education, specifically United Nations Sustainable Development Goal 4.

ESTABLISH

- Quality defined standards for the planning, design, construction and maintenance of educational facilities in all the geographical regions of Guyana.
- The authority of the Ministry of Education, as and central entity that defines and establishes standards for design and maintenance of educational facilities in the country;
- A benchmark that will guide and assist the Ministry of Education and other stakeholders, inclusive of private sector partners, to establish and maintain quality school infrastructure.

MOTIVATE AND ENABLE

- Wider participation of all sections of society in strengthening the school education institutions through engagement and support.

1.5 Rationale

for The National Policy for School Infrastructure Development and Maintenance (NPSIDM)

The National Policy for School Infrastructure Development and Maintenance is based on the following key rationales:

- The right to education: The right to education is enshrined in international and national law. This right includes the right to access a quality education in a safe and conducive learning environment.
- To promote effective teaching and learning: The physical environment in which teaching and learning takes place can have a significant impact on student engagement, motivation, and achievement. A well-designed and well-maintained school environment can provide learners with a sense of belonging and can support the development of positive learning habits. The NPSIDM aims to create school environments that are conducive to effective teaching and learning.
- Standards: The Policy aims to ensure that all schools meet national standards and international best practices for civil infrastructure, building construction, health and safety. The policy aims to ensure that the school infrastructure is adequately designed and maintained to an establish approved standard to support the achievement of national education goals.
- The policy seeks to create standardization of education facilities across the country with regards to classroom size, school facilities and services, school environment as it relates to ventilation, quality of space, fire safety and sanitation facilities. It establishes the facilities requirements for school by grade / size and specific requirement as influenced by geographical location.
- This policy is an outcome of Ministry of Education Sector Plan [2021-2025] objective “*Improving governance and accountability*” in the education sector. Under programme 1.2: *To develop coherent national policies geared towards improving education service delivery, the stated strategy includes*: -
 - a) Developing and updating policies that will facilitate the creation of appropriate learning conditions.

- b) reviewing and revising the non-academic standards of education facilities; part of this process will entail development of standards/specifications for the construction/maintenance of IT, Science laboratories and specialist classrooms and
- c) conducting biennial condition surveys as a means of improving education facilities.

The policy aligns with Ministry of Education sector's 2030 vision, "*Providing opportunities for quality, equitable education and lifelong learning for all.*"

The policy builds on the plans, programmes and efforts by the MoE in providing learning environments that are safe, nurturing, positive and respectful where students are able to learn and all staff members are able to carry out their responsibilities and duties, protected from threats to their physical and emotional wellbeing.

2.0 POLICY STATEMENT

2.1 Introduction of Policy Statement

Education is the cornerstone of a nation's progress and development. A crucial aspect of providing quality education is the availability of adequate school infrastructure. The National Policy for School Infrastructure aims to ensure that every child in the nation has access to safe, well-equipped, and conducive learning environments.

This policy outlines a comprehensive framework for the planning, development, and maintenance of school infrastructure at all levels of education.

This policy outlines the principles and procedures that will underpin the Ministry of Education development plans towards improving school infrastructure across the geographical regions of Guyana.

It aims support the implementation of Education Sector Vision 2030, The Education Sector Plan 2021-2025 and aligned with the plans of the Government of Guyana and its regional and international partners for education, specifically United Nations Sustainable Development Goal 4.

The policy establishes the principles to ensure that education facilities are adequate for the intended purpose and that all students have access to safe and healthy school facilities and have the necessary facilities they need to function to achieve the objective by "*Providing opportunities for quality, equitable education and lifelong learning for all*".

This policy should be read in conjunction with the Education Sector Vision 2030, The Education Sector Plan 2021-2025 which set out more information on the specific aspirations around the extent of school infrastructure over the coming years.

2.2 STATEMENTS

Policy Statement 1

All school facilities shall be design, built and maintained to meet the defined quality education facilities standards to ensure that every child in Guyana has access to safe, inclusive, adequately maintained and conducive learning environments. This includes ensuring that schools have adequate classrooms, laboratories, and the required learning spaces, with integration of contemporary technologies and learning resources.

Policy Statement 2

The design and maintenance of School Facilities shall be informed by the non-academic education standards that defines the baseline of standard for quality of learning spaces, services and resources required for education environments. School facilities shall be established and maintained to provide equal access to education and promote holistic development of students, educators, and communities.

3.0 VISION, GOALS AND STRATEGIC OBJECTIVES

National Policy for Schools' Infrastructure Development and Maintenance

3.1 Vision

The Vision of the Ministry of Education is to create an inclusive and equitable education system that guarantees access to quality education for all students by ensuring the availability of contemporary, safe, inclusive and adequately maintained school infrastructure that meets the standards that are defined and established.

This vision is grounded in the belief that all students deserve to learn in environments that are conducive to learning and their success.

Building the Future, Nurturing the Nation: A Vision for World-Class School Infrastructure.

The vision statement is aligned with the United Nations Sustainable Development Goal 4.a, which calls for the construction, adaptation, improvement, and maintenance of educational facilities that are child-, disability- and gender-sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

3.2 Policy Goals

To achieve The National Policy for School Infrastructure Development and Enhancement (NPSIDM) vision, the Ministry of Education will endeavour to:

3.2.1 Adequacy

To create school facilities that adequately support teaching and learning activities. This includes ensuring that schools have adequate classrooms, laboratories, and other learning spaces, as well as access to technology and other resources. This will be established by the facilities standards document developed from International and local best practices and standards.

To ensure that Education Facilities are adequate for the intended purpose and that all students have access to safe and healthy school facilities and have the necessary facilities they need to function, such as classrooms, libraries, laboratories, and sanitary facilities. This includes ensuring that schools are structurally sound, free from hazards, and have adequate ventilation, and lighting.

To establish and maintain school facilities that sufficiently support teaching and learning activities. This encompasses guaranteeing that schools possess appropriate classrooms, laboratories, and other learning spaces, as well as access to technology and other resources. This will be achieved through the implementation of a facilities standards document, derived from both International and local best practices and standards.

The aim is to ensure that Education Facilities are suitable for their intended purpose and that all students have access to secure and healthy school facilities, along with the necessary amenities required for their functioning, such as classrooms, libraries, laboratories, and sanitary facilities.

This entails ensuring that schools are structurally stable, devoid of hazards, and possess adequate ventilation and lighting.

3.2.2 Access

To promote equity and access to education for all students including those with disabilities and learning challenges including appropriate interventions to address disparities in school infrastructure between different geographical regions of Guyana.

3.2.3 Quality

To establish the baseline of standard, definition of quality without ambiguity, fit for purpose, safe school infrastructure which meets nationally agreed standards.

3.2.4 Management

To establish a professional, effective and efficient management of school infrastructure that encompass design, construction and maintenance. This is to ensure the education facilities standards are achieved and maintained.

3.2.5 Environmental Sustainability:

To promote sustainability and green design features in school infrastructure. This includes designing and constructing schools that are energy-efficient and environmentally friendly.

Improving the quality of existing school infrastructure. This may involve renovating or rebuilding schools that are in poor condition, providing schools with the required quality spaces, sanitation, equipment and resources.

3.3 Guidelines

This policy sets forth **guidelines** and expectations to achieve this goal.

3.3.1 Safety and Security

Education facilities must prioritize the safety and well-being of students, educators, and visitors through compliance with education building standards, safety regulations, and accessibility standards to accommodate all individuals.

Implement safety measures such as fire safety systems, emergency exits, and security personnel to safeguard students and staff. Conduct regular safety drills to prepare students and staff for emergencies. Conduct routine maintenance and management of safety utilities and systems.

3.3.2 Access and Inclusivity

Ensure that schools are accessible to all, including students with disabilities, through ramps and other necessary accommodations. Establish schools in remote and underserved areas to promote universal access to quality education.

3.3.3 Health & Comfort

Education facilities should be designed and maintained in a way that is healthy for students, staff, and visitors. This includes ensuring that buildings are well-ventilated and have adequate natural light, meets the minimum indoor air quality, adequate sanitation and access to water.

3.3.4 Functional Design

Education facilities should be designed to support effective teaching and learning, fostering collaboration, creativity, and critical thinking. Design elements should align with modern appropriate approaches and

emerging educational technologies. Designs for new schools should be specific to the location with a direct response to the environmental conditions [wind direction and sun path], hazards mitigation, responsive to the local cultural and vernacular architecture.

3.3.5 Sustainability and Environmental Responsibility

Sustainable practices, energy efficiency, and environmentally friendly designs and upgrade plans should be incorporated to minimize the ecological impact of education facilities. This includes utilizing renewable resources and waste reduction. Promote the use of energy-efficient appliances and technologies to reduce the environmental impact of school infrastructure.

3.3.6 Flexibility and Adaptability

Education facility designs should allow for flexibility in space utilization to accommodate evolving educational needs, technology advancements, and changes in curriculum and teaching methodologies.

3.3.7 Community Engagement

Inclusion of community input in the design and maintenance process is essential to ensure that education facilities meet the unique needs and preferences of the local community while fostering community engagement and support. This is necessary in Hinterland and Amerindian areas with reference to cultural preferences and specific geographical features.

3.3.8 Ongoing Maintenance and Upkeep

Proper maintenance and regular upkeep of education facilities are essential to preserve the longevity and functionality of the infrastructure. Adequate resources and procedures for maintenance, repair, and facility management should be established.

3.3.9 Technology Integration

Integrate digital technologies into teaching methods and administrative processes to enhance efficiency and effectiveness. Provide adequate IT infrastructure and training to both teachers and students to adapt to a digital learning environment.

Promote the integration of digital technologies, smart classrooms, and modern educational tools to enhance the learning experience.

Ensure reliable internet connectivity in schools as is reasonable possible, to enable seamless integration of digital resources and online learning.

3.3.10 Public-Private Partnerships (PPPs)

Encourage partnerships with private organizations to invest in and support the development of school infrastructure. Facilitate collaboration between government agencies, non-profits, and private entities for effective implementation of infrastructure projects.

3.4 Monitoring and Evaluation

Establish a digital data base of all school plans and maintenance condition assessment.

Establish a defects' reporting mechanisms that allow for inputs for education staff, school and community members.

Establish a monitoring and evaluation framework to assess the progress and impact of infrastructure projects at regular intervals. Conduct periodic audits to ensure compliance with infrastructure standards and assess the effectiveness of maintenance efforts.

Utilize data-driven insights to identify areas for improvement and optimize resource allocation.
Performance Indicators - develop key performance indicators (KPIs) to assess the quality, accessibility, and safety of school infrastructure.

3.5 Feedback Mechanism

Establish a mechanism for stakeholders, including students, parents, and teachers, to provide feedback on infrastructure quality and safety.

4.0 STRATEGIC OBJECTIVES

Of the National Policy for Schools' Infrastructure Development and Maintenance

Strategic Objectives for a National Policy for Schools' Infrastructure Development and Maintenance outlines the plan of action to achieve the policy goals. This outlines that path for the creation of a safe, inclusive, and conducive education environment for the provision of quality education for all learners and the attainment of national education goals

4.1 *Ensure equitable access to safe, healthy, and conducive learning environments for all students.*

- Provide all students with access to safe, healthy, and conducive learning environments that meet national standards for school infrastructure.
- Ensure that all schools have the necessary facilities and equipment to support effective teaching and learning.
- Eliminate disparities in access to school infrastructure across geographic regions, socioeconomic groups, and population groups with special needs.

4.2 *Promote best practices in school infrastructure design, construction, and maintenance.*

- Engage skill and qualified technical persons to design and prepare documentation of the design and maintenance of school facilities. Establish clear guidelines that shall be adhere to.
- Establish and enforce a clear terms of reference for design and maintenance of school facilities for consulting engineers and architects with specific emphasis on school environmental design as it relates to building conform and suitability.
- Establish and monitor a quality assurance system that involves independent reviews of design and documentation information
- Encourage the use of innovative and sustainable design and construction practices in school infrastructure projects.

4.3 *Promote the efficient and sustainable use of school infrastructure*

- Develop and implement comprehensive school infrastructure management plans that optimize the use of existing facilities.
- Establish a comprehensive asset management system for tracking, monitoring, and reporting on the condition of school infrastructure.
- Develop and implement evidence-based maintenance plans that prioritize preventative maintenance and extend the lifespan of school facilities
- Promote the use of sustainable design and construction practices in school infrastructure development. This shall include green energy features, low impact design and maintenance interventions and efficient power and water utilities.

4.4 *Enhance the resilience of school infrastructure to natural and man-made hazards and climate change*

- Conduct risk assessments to identify schools that are vulnerable to natural hazards and climate change.
- Implement measures to retrofit and upgrade school infrastructure to withstand natural hazards and climate change impacts.
- Develop and implement emergency preparedness and response plans for schools.

4.5 *Ensure safe and secure learning environments*

- Conduct risk assessments to identify and mitigate fire and security risks in existing schools and design and construct new schools with integrated fire safety and security features.
- Provide adequate fire safety and security equipment and training to school staff and students.
- Conduct regular fire safety and security drills and audits.
- Promote fire safety and security awareness and education
- Integrate fire safety and security education into school curricula.
- Conduct regular fire safety and security awareness campaigns for students, staff, and parents.
- Provide training and support to school staff on fire safety and security best practices.

4.6 *Strengthen the capacity of stakeholders for school infrastructure development and maintenance*

- Provide training and capacity-building programs for technical officers directly responsible for buildings design, maintenance planning and management, school administrators, teachers, and community members on school infrastructure standards and MoE goals and expectations.
- Strengthen the capacity of school staff and stakeholders to effectively manage and maintain school infrastructure.
- Promote partnerships between the government, the private sector, and civil society organizations for school infrastructure development and maintenance.

4.7 *Adequate and sustainable financing for school infrastructure development and maintenance*

- Develop and implement a comprehensive financing strategy for school infrastructure continual development and improvement by adequate budget planning, cost projection and financial management.
- Implement prudent and strategic financial planning aim to address critical improvements and areas of priority such as classroom environments, adequate learning aids, sanitation and safety.

5.0 IMPLEMENTATION STRATEGY

The National Policy for Schools' Infrastructure Development and Maintenance plan outlines the correspondent priority actions, responsible agencies, expected indicators, outcomes and tools are shown in tables below according to the Policy. The Ministry of Education will be the lead agency for the delivery of the policy programme and have the responsibility for determining the mechanisms for its implementation.

This policy statement will be implemented by the Ministry of Education through the following measures:

5.1 Development of standards and guidelines

The Ministry of Education will develop standards and guidelines for the design and maintenance of education facilities. These standards will cover all aspects of school infrastructure, including safety, health, accessibility, and sustainability.

Activity	Responsibility	Indicators	Anticipated Outcome
Development of standards and guidelines for Secondary Education Facilities	MoE With contribution and support from stakeholders Chief Education Officer	Documentation on the technical details for education buildings that are inclusive of facilities and spatial requirements, safety and environmental standards, general maintenance management.	A document will be prepared which shall be the benchmark for the design and maintenance of education facilities in all geographical regions of Guyana, The document establishes the technical standards, policy, strategies and guidelines to achieve MoE education policy goals.

5.2 Develop a national school infrastructure assessment

This will be used to identify the current state of school infrastructure and prioritize areas for improvement. Prioritize the construction and retrofitting of schools to meet accessibility standards, ensuring equal educational opportunities for every student

Activity	Responsibility	Activity	Anticipated Outcome
Conduct technical condition surveys of existing secondary education facilities which is guided by the standards	Permanent Secretary/Planning Unit/DPS - MoE	A detailed technical assessment document is prepared for each school that include the following: <ul style="list-style-type: none"> • Technical drawings that include site plan, all buildings, services [electrical, plumbing, fire etc.], • A condition, spatial and structural assessment of the buildings, • A list of requirements for upgrades based on the established standards, 	A complete package of documentation in prepared for each school that details <ol style="list-style-type: none"> 1. The requirements to upgrade the school facilities to meet the established standards 2. A maintenance plan for immediate and long term maintenance and suitability

		<ul style="list-style-type: none"> • A list of maintenance requirements by category of urgency, • Cost and Budget planning guidelines • Specific requirements based on geographical and cultural factors and • Recommended timetable for implementation by a phased approach. 	<p>3. Plan to upgrade and maintain the services [water, power, fire safety etc.]</p> <p>4. Specific improvements for hazard mitigation, sustainability, energy and water conservation etc.</p> <p>5. Cost and budget for implementation in a phase approach based on needs assessment.</p>
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5.3 Strengthen capacity for school infrastructure management and planning

The Ministry of Education will provide training and support to Technical project managers, engineers, consultants, related education management staff, National and regional school administrators and other stakeholders in school infrastructure management and planning.

Activity	Responsibility	Activity	Anticipated Outcome
<p>Skilled and qualified technical staff to manage the education facilities design and maintenance.</p> <p>Information management will employ various contemporary methods such as Apps, software and IA to share information and monitor maintenance and building performance.</p>	<p>Permanent Secretary/Planning Unit/DPS</p> <p>Human Resource Manager/Deputy Chief Education Officer (A)/DCEO(D)/ACEOs/CPO</p>	<ul style="list-style-type: none"> • Provide training workshops, printed manuals and operation protocols to persons and organizations associated to education facilities design and maintenance. • Establish benchmark design requirements and specifications for education facilities [new buildings and maintenance of existing facilities] • Establish an independent quality assurance system – to check and verify compliance to standards prior to project construction • Establish a verification of compliance after construction prior to hand-over. • Establish building performance requirements list with respect to ventilation, sanitation, fire safety etc. • Use electronic media to aid documentation, information sharing and management of building design and maintenance. 	<p>Education facilities will be design and maintained to a set benchmark standard.</p> <p>Standardization of spaces, facilities and services will be established across all schools over a planned implementation period.</p> <p>All associated persons will be trained and certified.</p> <p>A system of verification, checks and compliance will be done to ensure compliance.</p> <p>A continual monitoring systems will be installed using apps, software and other electric media to aid communication.</p>

5.4 Management & Maintenance

Establish a dedicated facilities unit in MoE, responsible for overseeing the implementation and monitoring of this policy. Establish a centralized monitoring system to oversee the design and maintenance activities and conduct periodic inspections to address any infrastructure-related concerns. Implement a routine maintenance schedule to ensure the longevity and functionality of school infrastructure.

Cognizance to the existing procedure, that design and maintenance of education facilities [located in districts nr. 1-10] are managed by the various Regional Departments [RDC] under the mandate of the Ministry of Local Government, the results and outcome has been inadequate to very poor [as stated in several MoE reports]. This is the consequence of several factors from absence of standards, inadequate skill technical staff and management.

Given this reality, the ministry of education should undertake the supervision of the management and implementation of all design and management plans and establish a system of verification and compliance checks of education building projects.

Activity	Responsibility	Indicators	Associated Outcomes
Establish a dedicated facilities' management unit in MoE, responsible for overseeing the implementation and monitoring of this policy – across the entire country [in all regions]	Permanent Secretary/Planning Unit/DPS Chief Education Officer	All design for new and extension to education facilities shall be approved by MoE facilities management unit. All Maintenance plan that include the documentation such as the drawings and BoQ will be review and approved by MoE facilities management unit. MoE shall provide guidelines as developed in strategy nr.2 [see above item 2.0] in the form of a facilities requirements, maintenance plan and costing projection. This will be provided to the RDC /MoLG.	Education facilities will be design and maintained to a set benchmark standard as guided by the New Facilities standards. MoE will achieve its policy goals of standardization and quality education infrastructures.

5.5 Monitoring and Enforcement

The Ministry of Education will monitor and enforce compliance with this policy statement, the new technical Standard for design and maintenance to meet its strategic objectives. This will be done through regular inspections of education facilities and by reviewing Regional district [RDC] performance and other education provider maintenance plans.

Regularly evaluate the progress of infrastructure development and maintenance and update the policy as needed to align with evolving educational and technological needs.

Activity	Responsibility	Indicators	Associated Outcomes
Establish a dedicated facilities' management unit in MoE, responsible for overseeing the implementation, monitoring and enforcement – across the entire country [in all regions]	Permanent Secretary/Planning Unit/DPS Chief Education Officer	Creation of a national data base of education facilities as outlined in strategy nr.2 [see above item 2.0] Regular inspection of education facilities in all regions and update maintenance plans. Stakeholders and education staff are included in the management of the facilities by involvement in reporting, advise and documentation.	Establishment of a dedicated facilities' management unit in MoE to monitor and enforcement of the New Education Facilities' standards for all design for new and extension to education facilities. Design and maintenance plans for education facilities are reviewed, and monitored during implementation. Performance of Education facilities are monitored by use electronic media to aid documentation, information sharing and management.

5.6 Conclusion

The national policy for school infrastructure is a commitment to ensuring that all students have access to safe, healthy, and equitable school facilities. It sets out a vision for school infrastructure that is essential for quality education.

This National Policy for School Infrastructure aims to transform the educational landscape by providing safe, accessible, and technologically advanced infrastructure for schools. By integrating modern technologies and sustainable practices, and ensuring regular maintenance and inclusivity, MoE and stakeholders, aspire to create a conducive learning environment that fosters excellence and equity in education.

The National Policy for School Infrastructure Development and Maintenance envisions a future where education facilities are not just buildings but centers of excellence, fostering creativity, critical thinking, and lifelong learning. By adhering to the core principles and objectives outlined in this policy, MoE aims to provide pupils with the best possible educational environments, thus preparing them to become responsible citizens and leaders who can contribute to the progress and prosperity of Guyana.

6.0 POLICY CONTEXT

6.1 INTERNATIONAL POLICY CONTEXT

School infrastructure is globally recognized as essential for all children to achieve their full potential as individuals, and progressive citizens. This is highlighted through its inclusion in a range of international policies and charters, with key extracts included below.

School Infrastructure is widely recognized as being foundational for achieving the Sustainable Development Goals (SDGs, 2016-2030):

- *Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive, and effective learning environments for all (SDG 4, Target 4A).*
- *By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations (SDG 4, Target 4.5).*

The United Nations Convention on the Rights of the Child (1989), Article 28:

- *This states that Parties recognize the right of the child to education, and with a view to achieving this right progressively and based on equal opportunity, they shall, in particular, make primary education compulsory, available and free to all.*

The United Nations Convention on the Rights of Persons with Disabilities (2006), Article 24 (1) (2) (3), Article 24: Education:

- *Effective individualized support measures are provided in environments that maximize academic and social development, consistent with the goal of full inclusion.*

6.2 NATIONAL POLICY CONTEXT - Legislative & Policy Framework

Several policies and pieces of legislations are established, enacted and initiated, which help to guide the main tenets of this document. One of the key rationales for this policy is that it adequately responds to the demand of, amongst others, the following policies, programs, and legal instruments.

6.2.1 Legislative Framework

The legislative framework for the Education systems in Guyana is designed to ensure that all Guyanese citizens have access to quality education. The legislation sets out the standards that schools must meet and the rights and responsibilities of all stakeholders in the education system.

The Ministry of Education is responsible for overseeing the implementation of the legislative framework for education in Guyana and establishes the Ministry of Education as the government agency responsible for the development and implementation of education policy in Guyana.

The Constitution of the Cooperative Republic of Guyana

The Constitution of Guyana is the supreme law of the land and all other law and legal framework must be considered with the context of the Constitution. In the Constitution, education is considered for under the following Articles:

- Article 27 (1): "Every citizen has the right to free education from nursery to university as well as at non-formal places where opportunities are provided for education and training."
- Article 38(E): "Formal education is compulsory up to the age of fifteen years"
- Article 149J: (1) "Everyone has the right to an environment that is not harmful to his or her health or wellbeing."
- Article 149(H): "Every child is entitled to free primary and secondary education in schools owned or funded by the State"

The Education Act (1877) makes provisions for the promotion of Education in Guyana. The act established the Ministry of Education and places the authority for the establishment, management, and maintenance of schools or other places of education for the provision of nursery, elementary, secondary or further education, within the confines of the Chief Education Officer (CEO). The act guides all related educational activity including the safety of schools.

The 1980 Constitution of Guyana, as amended in 2001, enshrines the right to education in its Article 27, which provides that: 'Every citizen has the right to free education from nursery to university as well as at non-formal places where opportunities are provided for education and training.' Education in Guyana is regulated by the 2014 Education Bill.

Education Act (1999) makes provisions for the promotion of education in Guyana. The Act establishes an Education Department and outlines functions of the Chief Education Officer and subordinate Education Officers who staff the Department. It also provides for the establishment of Government schools, the provision of an education system and the right of access of all children to schools. The Act established a National Council for Education to advise the Minister on matters relating to nursery, primary, secondary or further education and makes recommendations regarding these issues. The Act also empowers the Minister to declare educational districts and to establish regulations to support the provision of education in Guyana.

People living in rural and remote areas, as established in the 2014 Education Bill, the chief education officer may, after consultation with the council on special education, in special circumstances and under conditions to be determined

after full consideration of each case, give grants to a governing body for the primary education of children residing in remote or sparsely populated places and in difficult-to-access places.

Occupational Safety and Health Act (1997) defines the responsibilities of management and workers with respect to safety and health and applies to every workplace in Guyana.

Persons with Disabilities Act 2010, determines that the Ministry of Education shall promote the integration of students with disabilities into regular schools and learning institutions and promote the establishment of special schools by the government and private sector for those persons in need of special education so that children with disabilities living in any part of Guyana can have access to these schools. The minister is to establish special education classes in schools and facilitate learning in subject areas including Braille, alternative script, formats of communication and mobility skills. Local government authorities are to adopt appropriate measures to facilitate the implementation of the special education programme.

Town and Country Planning Act (1946), provides for the (orderly and progressive) development of urban and rural lands and the preservation and improvement of amenities for such development. Development activities under the Act are related to the construction of buildings and road works subsidiary to buildings. The Act focuses on town planning schemes and regional schemes (out of urban areas). Such schemes comprise buildings, sanitation, and coordination of roads, facilities and public services, provision of amenities and the conservation and development of resources. Implementation and enforcement are vested in the Central Housing Planning Authority (CHPA). The Act provides for cooperation with local authorities, and permit processing for building operations. The Act also includes provisions for zoning and the regulation of buildings, site designs, roads, amenities, public services, transport and communications.

Housing Act, Cap. 36:20 of 1948 was enacted to make provisions with respect to the housing of persons of the working class. Pursuant to Section 3 of the Housing Act – the Central Housing and Planning Authority (CH&PA) was established and charged with instituting the provisions of the Act. Currently, the CH&PA falls under the purview of the Ministry of Communities. Section 11 of the Act mandates the CH&PA to acquire lands to construct approved housing schemes including the building of schools. The housing act guides the locations of schools. Locations of schools have a direct relationship with safety and resilience and schools' environmental and physical standards.

Environmental Protection Act (1996 and 2005 Amendments), Cap. 20:05 of 1996 along with the Environmental Protection (Amendment) Act 2005, establishes the requisite institutional and regulatory framework to implement the environmental provisions of the Constitution⁸. Pursuant to this Act several regulations were enacted such as the Water Quality, Hazardous Waste Management, Air Quality and Noise Management Regulations (2000). These regulations assist the Environmental Protection Agency (EPA), established under the Act, to effectively oversee the management, conservation, protection and improvement of the environment and also to assess the impact of developmental activities on the environment and the sustainable use of natural resources.

Specifically, the Hazardous Waste Regulations (2000) outline rules and procedures for the transport, storage, treatment and disposal of substances hazardous to human health and the environment. The Air Quality Regulations (2000) requires development activities (construction, installation, operation, modification, extension), that emit air contaminants to seek environmental authorization. The Water Quality Regulations (2000) requires developmental activities that discharge effluents to the surrounding environment to seek authorization from the EPA.

The Noise Management Regulation (2000) requires operations that emit noise to obtain environmental authorization in order to commence operations. The regulation also establishes pre-defined noise limits (levels) depending on the type of land use.

The EPA has particular relevance in the sustainable approach of the policy which addresses issues of natural resources management, chemicals and waste hazards and biological and chemical-related risks in school.

6.2.2 Policy Framework

The Guyana Education Strategic Plan 2021-2025 has been developed with the plan to provide opportunities for quality, equitable education and lifelong learning for all. This plan is consistent with the goals of previous education plans that is to: "To contribute to employability and reduction of poverty, by increasing performance at all levels and reducing the disparity between sub-groups."

These goals are in aligned with the plans of the Government and its regional and international partners, specifically the United Nations Sustainable Development Goal 4.

Learning Environments / Infrastructure and services

As part of the 2021-2025 education sector plan, the Ministry of Education was to improve the quality of school facilities. Regions were to be assisted to develop preventative maintenance plans for schools and improve their infrastructure.

The 2014 Education Bill established that furniture and equipment, washrooms and other facilities must be adequate and suitable, having regard for the number, ages and gender of the students who will be attending the institution or school.

Education for Sustainable development (ESD) Policy in 2016.

This policy seeks to introduce the principles of sustainability in all aspects of the formal, non-formal and informal education system in Guyana AND include the Education Act, the Protocol for Safe and Secure Schools and the Code of Practice for Buildings. [MOE Guyana. Education for Sustainable Development.

<https://education.gov.gy/web2/index.php/policies/78-education-for-sustainable-development/1489-education-for-sustainable-development>]

Green State Development Strategy (GSDS)

The Green State Development Strategy: Vision 2040, formulated in 2019, is Guyana's national strategy for development over the next 20 years. The Government's vision is the creation of an "inclusive and prosperous Guyana that provides a good quality of life for all its citizens based on sound education and social protection, low-carbon resilient development, providing new economic opportunities, justice and political empowerment"

The strategy envisions that schools, classrooms, and dormitories should have improved designs, facilities and access. Furthermore, maintenance should be preventative so as to avoid deterioration of the integrity of school buildings. School are also expected to have incident preparedness and response plans and protocols that will safeguard lives in the event of an emergency. [Guyana Green State Development Strategy - Vision 2040]

Child-Friendly Schools

The MoE's 2011 Protocol for Safe and Secure Schools aims at creating a safe and secure school environment where teachers and administrators can effectively fulfil their duties and students can concentrate on learning. To achieve this, schools are required under the protocol to develop a School Safety Plan that will guide action towards a safer more secured learning and working environment for students and teachers respectively. The protocol outlines the role of the school administrators, teachers, students, parents, police and fire services and other educational personnel.

National Policy on Occupational Safety and Health 2018

The policy aims to eliminate and reduce hazards and the incidence of work-related injuries, fatalities and diseases in addition to promoting the positive development factors in the working environment to enhance social, mental and physical well-being of workers. It establishes Guyana's tripartite vision for Occupational Safety and Health and the associated actions including a systems approach to safety. The policy will guide the safety conditions of workers in schools including teachers and administrative staff.

Code of Practice for Buildings

The Guyana National Bureau of Standards (GNBS) Code of Practice for Buildings was formulated in 2005.

Part 3 of the code pertains to fire safety use and occupancy. It provides provisions for fire protection and control of buildings and the classification of all buildings and structures based on occupancy, use and type of construction. The code requires the consideration of fire-resisting building materials; adequate means of egress in the event of an emergency and fire protection and emergency systems. Furthermore, the code categorizes buildings based on occupancy type as follows:

The National Code of Practice is central in establishing the structural related elements of the school safety policy.

Regional Energy Efficiency Building Code

The 2018 CARICOM Regional Energy Efficiency Building Code (CREEBC) functions to regulate minimum energy conservation requirements for new buildings. The Code provides minimum energy-efficient requirements for the design, construction and plans for operation and maintenance of new buildings; new portions of buildings; new systems equipment in existing buildings and new equipment or building systems that forms part of an industrial or manufacturing process (CREEBG, 2018).

This code regulates ventilation, water heating and power usage for appliances and building systems in the Caribbean to ensure efficient use and conservation of energy over the useful life of each appliance or building. It is required that the owners or owner's authorized agents be responsible for maintaining buildings in a safe and sanitary condition (CREEBG, 2018).

7.0 INSTITUTIONAL FRAMEWORK

Identification of key decision makers and influencers. The institutional framework outlines the formal organizational structure of the Ministry of education, local governments, or other relevant agencies that are involved in the planning, support and managing of school infrastructure.

Ministry of Education

- The Permanent Secretary of the Ministry
- Chief Education Officer
- Deputy Chief Education Officers
- Regional Education Departments (REDOs)
- Head-teachers
- Other support bodies

Ministry of Health

- Regional Health Departments (RHO's)

Ministry of Public Works

- Guyana Energy Agency (GEA)
- Central Housing and Planning Authority. The (CH&PA)

Ministry of Local Government

- Regional Democratic Councils of regions 1-10
- Neighbourhood Democratic Councils, Town Councils and Village Councils

Government Agencies

- Guyana Policy Force
- Guyana Fire Services
- Environmental Protection Agency (EPA) Guyana
- Civil Defence Commission

7.1 MINISTRY OF EDUCATION

The Ministry of Education (MOE) in Guyana is responsible for the development and implementation of education policies and programs at all levels, from nursery to tertiary education. The MOE's mission is to "ensure that all citizens of Guyana, regardless of age, race, gender, creed, physical or mental disability, or socio-economic status are given the best possible opportunity to achieve their full potential" through equal access to quality education.

Summary of Roles and Responsibilities of the Ministry of Education.

- Setting and implementing education policies and programs: The MOE is responsible for developing and implementing education policies and programs that align with the country's national development goals. This includes setting curriculum standards, developing assessment frameworks, and overseeing the delivery of education services.

- Managing the education system: The MOE is responsible for the day-to-day management of the education system. This includes overseeing the construction and maintenance of schools, hiring and training teachers, and ensuring that schools have the resources they need to provide quality education.
- Monitoring and evaluating the education system: The MOE is responsible for monitoring and evaluating the performance of the education system. This includes collecting data on student achievement, teacher effectiveness, and school quality. The MOE uses this data to inform its decision-making and to improve the quality of education in Guyana.
- Promoting equity and access to education: The MOE is committed to ensuring that all children in Guyana have access to quality education, regardless of their background or circumstances

The administration of the education sector in Guyana:

- a) The Ministry of Education (MOE) is the highest authority on education in Guyana. It is responsible for developing and implementing education policies and programs, as well as providing support to schools and teachers. The MOE is headed by the Minister of Education, who is appointed by the President of Guyana.
- b) The Permanent Secretary of the Ministry as leader of the Management Team, was responsible for formulation coordination and implementation of plans, evolution of other measures of efficiency in the education and related processes. He was assisted by two (2) Deputy Permanent Secretaries one (1) Education Planning Officer, and two Principal Personnel Officers.
- c) The Chief Education Officer has the overall responsibility for the professional matters related to the delivery of education throughout the education system. He was assisted by Deputy Chief Education Officers, an A.C.E.O. (Inspectorate) and a Superintendent of Examinations.
- d) The Inspectorate Division headed by the Assistant Chief Education Officer (Inspectorate) functioned as the Chief Education Officer's main instrument for carrying out the relevant statutory functions of the maintenance and improvement of standards in the school system.
- e) Deputy Chief Education Officers: There are four Deputy Chief Education Officers (DCEOs) in the MOE: the DCEO (Administration), the DCEO (Development), and the DCEO (Technical). The DCEOs are responsible for specific areas of education, such as policy implementation, monitoring and evaluation, and technical and vocational education and training.
- f) Regional Education Departments (REDOs)
There are 11 REDOs, one for each administrative region in Guyana. The REDOs are responsible for overseeing the implementation of education policies and programs at the regional level. They also provide support to schools and teachers in their respective regions.
 - Head-teachers are responsible for the administration of their individual schools. They work with the MOE and the REDO in their region to implement education policies and programs, and to ensure that their students are receiving a quality education.
 - Schools are the lowest level of the education sector administration. They are responsible for implementing education policies and programs at the local level. Schools are headed by principals, who are responsible for the day-to-day operations of their schools.
- g) Other agencies and organizations that play a role in the administration of the education sector in Guyana. these include:

- Parent-Teacher Associations: Parent-Teacher Associations (PTAs) are organizations that bring together parents and teachers to work together for the benefit of students.
- School boards in Guyana are composed of representatives from the community, including parents, teachers, and other stakeholders. They are appointed by the Ministry of Education and serve for a period of three years. These include, Developing and implementing school policies, Monitoring the performance of schools, providing support to schools, promoting community involvement in education: School boards promote community involvement in education by working with parents and other stakeholders to support schools and students.
- School Staff – Provide teaching and mentoring services to students and user of the school facilities.
- Community: Providing financial and material support, volunteering their time and skills and undertake fundraising activities in the community to improve the resources for the local schools.
- NGO, external Agency as UNICEF: NGOs play an important role in supplementing the work of the government in the education sector. They offer a variety of educational programs and services, including the technical support and funding for studies and advisory support.

7.2 MINISTRY OF HEALTH

The Ministry of Health (MOH) – Guyana, is the national public service agency mandated to deliver and oversee the delivery of healthcare throughout the country and to effect plans and policies to aid in this regard. Enacted by way of the Ministry of Health Act 2005, the Ministry strives to “improve the physical, social and mental health status of all Guyanese by ensuring that health services are as accessible, acceptable, affordable, timely and appropriate as possible give available resources and enhance the effectiveness of health personnel through continuing education, training and management systems” (Ministry of Public Health – Guyana 2016).

The MoH is an important stakeholder in several elements of the School Infrastructure Development and Maintenance programme as it relates to health and safety in the Education delivery environment such as emergencies, pandemics, vector related hazards such as biological and mental health.

7.3 MINISTRY OF PUBLIC WORKS

The Ministry of Works (MoW) is the Government of Guyana’s focal point for planning, creation and maintenance of major public civil works infrastructure. It is the Ministry’s mission to “plan, build and maintain a reliable, safe, efficient and cost-effective main road network and sea and river defence system to protects life and property; support the movement of people, goods and services; reduce the cost of transportation; promote economic growth and quality of life and protect the environment” (MOPI, 2018a).

The Ministry of Works is the responsible agency for maintenance of public infrastructure that include school facilities. Other assist the MoW in carrying out its mandate, these include Guyana Energy Agency (GEA) that deals with energy efficiency and related fields and the Central Housing and Planning Authority. The (CH&PA) authorizes the design and construction of all buildings in Guyana including schools. The safety and sustainability elements of the policy is influenced by the mandate of the (CH&PA).

7.4 THE MINISTRY OF FINANCE

The Ministry of Finance (MoF) plans and manages the financial portfolio of Guyana and support the education section in several important roles inclusive of:

- Allocating financial resources to the education sector, this includes school construction and maintenance, and educational materials.
- Overseeing the use of financial resources in the education sector:
- The MoF is responsible for overseeing the use of financial resources in the education sector. This includes ensuring that funds are used efficiently and effectively, and that they are used for the intended purposes. The MoF also conducts audits of the education sector to ensure that financial resources are used as intended.
- Providing financial advice to the Ministry of Education: The MoF provides financial advice to the Ministry of Education on a variety of matters, such as budgeting, procurement, and financial management. The MoF also works with the Ministry of Education to develop and implement policies and programs to improve the efficiency and effectiveness of the education sector.

7.5 MINISTRY OF LOCAL GOVERNMENT AND REGIONAL DEVELOPMENT (MLGRD)

Ministry of Local Government and Regional Development (MLGRD) in Guyana primarily focuses on local governance, local government administration, and the development of local communities

The MLGRD is responsible for [in the context of the Education Sector]

- General supervision of the delivery of education services at the local level. This includes working with Regional Democratic Councils (RDCs) and other local authorities to ensure that all children have access to quality education.
- Supporting the implementation of educational policies and programs: The MLGRD supports the implementation of educational policies and programs developed by the Ministry of Education. This includes working with the RDCs and the Municipalities to develop and implement regional and local education plans.
- Provision of Finance management, technical planning and management for the construction and maintenance of schools in rural and hinterland areas.
- Provision of essential services to school facilities that include: water, electricity, security, waste disposal etc.
- The MLGRD also plays a role in supporting the education sector in Guyana through its work on other areas of local government, such as community development, infrastructure development, and environmental protection.

Regional Democratic Councils

The Regional Democratic Council (RDC) is the arm of the Ministry of Local Government and Regional Development (MLGRD) with the responsibility for the overall management and administration of the Region and the coordination of the activities of all Local Democratic Organs within its boundaries.

The Regional Democratic Councils (RDCs) play a number of important roles in the education sector in Guyana. These roles include:

- Planning and implementing regional education policies and programs: The RDCs are responsible for planning and implementing regional education policies and programs. This includes developing and implementing regional education plans, which are aligned with the national education plan developed by the Ministry of Education.
- Overseeing the delivery of education services in the region: The RDCs are responsible for overseeing the delivery of education services in their respective regions. This includes working with the Regional Education Departments (REDs) to ensure that all children in the region have access to quality education.
- Through management support from MLGRD, provide technical planning and management for the construction and maintenance of schools in rural and hinterland areas.

Town Councils, Neighbourhood Democratic Councils and Village Councils

Town Councils, Neighbourhood Democratic Councils and Village Councils are a function of local government and are responsible for the smooth operation of neighbourhood development, including solid waste management, operation of markets, drainage, and road and dam upkeeps.

The Town Councils, NDCs and Village Councils for the area where schools where schools will be constructed or extended will have roles to play in approving the works to be done and may provide services such as waste collection and disposal to the project.

7.6 GUYANA POLICE FORCE

Established in 1839, the Guyana Police Force falls under the purview of the Ministry of Home Affairs. Its mission is to serve all citizens and communities of Guyana, partnering with public and private agencies to enhance and support crime prevention, maintain law and order, control traffic, protect property and preserve peace to build a safer and more secure Guyana (Ministry of Public Security, 2019).

Safety is directly linked to security. The Guyana Police Force therefore plays an important role in safety management in schools in Guyana.

7.7 GUYANA FIRE SERVICE

Established under the Fire Service Act Cap. 22:02 of 1957, the Guyana Fire Service (GFS) is the country's primary fire fighting agency. Under the purview of the Ministry of Public Security, the Guyana Fire Service's mission is to protect life and property from destruction by fire by employing the best practices for fire protection, prevention and public education (Guyana Fire and Rescue Service, 2014).

The work of the GFS extends to fire prevention, fire fighting, an inspection of buildings, provision of humanitarian services, capacity building for staff, issuance of licenses and public awareness (Guyana Fire and Rescue Service, 2014). Since fire is main hazard to public safety the GFS is a key stakeholder in the safety component of the policy.

7.8 ENVIRONMENTAL PROTECTION AGENCY (EPA) GUYANA

Established under the Environmental Protection Act 1996, EPA-Guyana is the agency with the responsibility to implement the provisions of the 1996 Act as well as its Amendment (2005) and Regulations. The EPA has several support roles in the education section, these include:

Developing and delivering educational programs and materials on environmental protection: The EPA develops and delivers a variety of educational programs and materials on environmental protection for students of all ages. These programs and materials cover a wide range of topics, including climate change, biodiversity conservation, and pollution prevention.

Working with schools to develop and implement environmental management plans: The EPA works with schools to develop and implement environmental management plans. These plans help schools to reduce their environmental impact and to promote environmental sustainability.

The work of the EPA intersects with the sustainability element of the policy and school safety. Activities such as waste management, chemical management, natural resources management and general greening of schools are all activities that will be guided by the Environmental Protection Act.

7.9 CIVIL DEFENCE COMMISSION

The Guyana Civil Defence Commission (CDC), established in 1982, is Guyana's National Disaster Coordinator under the CDEMA. The CDC outlines disaster and contingency plans for action and to mitigate the effects of disasters. It coordinates the national system for Disaster Risk Management in Guyana.

The CDC assist in the development and implementing disaster risk reduction (DRR) and disaster management (DM) education programs and plans for education facilities.

These programs are designed to teach students about the different types of hazards that Guyana faces, how to prepare for and respond to disasters, and how to stay safe during a disaster.

Working with schools to develop and implement disaster preparedness plans: The CDC works with schools to develop and implement disaster preparedness plans. These plans help schools to reduce their risk to disasters and to respond effectively to disasters if they do occur.

The CDC raises awareness of disaster risks among students and the general public through public education campaigns, workshops, and seminars. For example, the CDC has conducted public education campaigns on flood preparedness etc.

7.10 THE GUYANA NATIONAL BUREAU OF STANDARDS (GNBS)

GNBS is responsible for setting and enforcing standards for goods and services in Guyana and plays an important role in ensuring the safety, quality, and reliability of buildings in Guyana. The GNBS standards for building construction and materials are important for ensuring the safety, quality, and reliability of buildings in Guyana. By complying with these standards, building owners and contractors can help to ensure that their buildings are safe for occupants and that they will last for many years to come.

The institutional framework for the MoE is complex and ever-evolving. However, the various agencies and bodies listed above work together to ensure that all Guyanese children have access to quality education.

8.0 EXISTING SECONDARY EDUCATION FACILITIES

There are 185 secondary schools in Guyana, serving 57,863 students across the ten Geographical regions. By 2025, this number is expected to increase by 10%.

A dated study indicated that there are 278 buildings comprising of 185 secondary schools and related facilities that include teachers' quarters, practical instruction centers and dormitory facilities.

Building structures constructed by building blocks with almost a third (29%) of existing secondary schools have one block and the remaining schools have two or more blocks. The average total area in a given school at this level for which data is available is 10,484 square feet.

Existing secondary schools were constructed between 1800-2023 [223 year-period range]

- 3% of existing secondary schools were constructed during the 1800s.
- 8% (21 schools) were constructed between 1900s and 1950s.
- 20% (55 schools) were constructed between 1960s and 1970s.
- 10% (28 schools) at this level were constructed between 1980s and 1990s.
- 18% (51 schools) were constructed between 2000 and 2017.
- 6-10% [15-20] secondary schools were constructed between 2018-2023

Information on the existing education infrastructure is limited and where it exists, they are dated and partially, technically inadequate. MoE indicated the issue of maintenance of education buildings and infrastructure is challenging due to unavailability of current applicable information that is necessary to inform the process. The consequence of this inadequacy are low prioritisation of the maintenance, inaccurate intervention and limited overall improvements to the School Facilities.

A general review of existing education facilities was undertaken [2015-2016] by MoE with support from the RDC staff, using format and standards of that period. The facilities condition survey encompasses general information on Physical Facilities including enclosure and structure, furnishing, services that include water, power, waste disposal, general sanitation and where exist – accommodation of students and teachers.

Subsequent to this condition survey, various maintenance programmes were initiated and executed. In 2018, reported information indicate that 59% of all schools [Secondary] are in fair / good condition. ¹

Over the last two plan periods, physical infrastructure in many schools has been enhanced. Approximately 2 billion dollars were spent on maintenance from 2008-2013.

Although schools are in better condition than they had been for more than three decades, some regions are not adhering to the standards outlined in the building standards of the Ministry of Education. Some have not implemented a systematic preventive maintenance plan.

¹ Education Sector Plan 2021-2025, MoE. Pg. 25

Review of Existing Education Facilities

In 2017 the Ministry of Education undertook a condition of education facilities survey, to as far as possible, obtain detailed information on the condition of all nursery, primary and secondary schools and any associated buildings. The report summarized that

General Overview

Sixty-seven percent (185 facilities) are in good/new condition. Most (70%) of facilities in this category are in good condition, with some wear and tear, minor repairs needed. Twenty-one percent (21%) of the facilities at this level are in average condition, with wear and tear that require repairs. Eleven percent (11%) are in urgent need of repair, most of the repairs are needed for windows and doors. Twenty-three percent (23%) school buildings do not have windows.

Sanitation and Water

Nationally just about half (51%) of secondary facilities have sanitation and water facilities that are in good/new condition. More than half (64%) of the facilities in this category are in good condition, with some wear and tear that require minor repairs. Fourteen percent (14%) have average wear and tear that require repairs and six percent (6%) are in urgent need of repairs.

Electricity

Fifty-nine percent (59%) of secondary facilities have electrical installations that are in good/new condition. Eighteen percent (18%) have average wear and tear, which require repairs. Most of the fixes in this category are related to the lighting fixture and wiring and switches and sockets. Seven percent (7%) are in urgent need of repairs. Ninety-two facilities at this level do not have any transformers, solar panels and inverters, which are sources of power.

Facilities and Equipment

There is no information on how many schools have a library. However, most primary schools are equipped with a library corner to facilitate reading. In terms of IT and Science laboratories in schools across levels, 94% of secondary school in Guyana are equipped with IT labs; and just under 25% of primary schools are equipped with IT labs. Most secondary schools are equipped with a science lab, and all secondary schools have access to micro-science kits.

Consequence of new housing developments, MoE's programme to replace secondary departments in primary schools (primary tops) together with additional of specialist subject areas, several new schools are being planned, in construction phase, while several others are being extended and upgraded to meet the new and projected demand. Several old school facilities are being replaced with new buildings. By 2025, MoE, is projected to spend G\$2.3B on education Facilities.

9.0 Guidelines for Site Selection for Establishment of a New School

9.1 SITE SELECTION CRITERIA

Careful site selection is a key step in sustainable school construction. Physical facilities in hazardous areas are vulnerable to floods, landslides, cyclones, etc. An assessment of potential risks at the site is, therefore, crucial in terms of disaster risk reduction. Another challenge is that villagers may not accept particular school locations for various reasons, including the site's history or other socio-cultural reasons. In order to select a suitable school site, a number of issues must be considered and discussed with the local authorities and the community.

Criteria	Description
1.0 Institutional:	<ul style="list-style-type: none"> a) Land ownership is established b) Permission given to establish a school complex. Note – Amerindian Title land will require special permission. c) Verify the current area zoning [urban plan / regional plan / city plan] d) Seek pre-approval from Regional / state / town council / NDC / Indigenous Village Council e) Acquire inputs / comments from wider Community and solicit consensus. f) Meet the Minimum requirement of number of students for establishment of a school [MoE Standards]
2.0 Social:	<ul style="list-style-type: none"> a) Ensure community's acceptance of site locations. b) Schools should be sited near the villages it serves, so that pupils have a shortest possible way to the school and the compound becomes an integrated part of the village. c) The school should be located within walking distance for all children. The maximum distance between children's houses and school should be equivalent to a 45-minute walk.
Physical	<p>School site location guidelines are designed to ensure schools are considered in neighbourhood design process with the intention of siting schools in central locations, on prominent and accessible sites, within interconnected, walkable neighbourhoods.</p> <p>Planning for school sites cannot take place in isolation but rather must consider neighbourhoods and surrounding areas where schools are located in a collaborative planning process with communities and local officials.</p> <p>Where there are options for site selection – the following are strategic guidelines:</p> <ul style="list-style-type: none"> a) The Land Size, orientation, shape, layout, proximity and available options for expansion are met for the grade of school [population size] facilities to be constructed. Refer to section on land size. b) <u>Central Location</u>: Seek central location within emerging neighbourhoods to provide a high degree of connectivity for the most students within a neighbourhood. c) <u>Avoid Barriers</u>: Avoid areas where barriers restrict access to the school. School sites adjacent to busy roadways, large canals / trenches or other barriers may limit connectivity for active modes of transportation to and from the school. d) <u>Frontage on Two – Three Streets</u>: Neighbourhood Streets which provide connections to schools should include sidewalks on both sides of the street to accommodate and promote safe walking routes to school. e) <u>Take Advantage of Existing facilities / services</u>: It is recommended to locate a school near existing facilities such as community playground – this may negate the need to have separate playground

	<p>facilities – which had been a challenge for maintenance and upkeep. The Presence of power, water, waste disposal services etc. already exist and functioning.</p> <ul style="list-style-type: none"> f) <u>Incorporate Sidewalks / pavements</u>: Neighbourhood Streets which provide connections to schools should include sidewalks on both sides of the street to accommodate and promote safe walking routes to school. g) <u>Take Advantage of Natural Features</u>: Where possible schools should be located near important natural and naturalized features such as parks / community playgrounds etc., to take advantage of outdoor learning and recreational opportunities. Consideration for child safety in the design of the school site is crucial. Buffering natural features and school buildings with sports fields or fences where appropriate. h) <u>East/West Orientation</u>: A school site which accommodates an east/west orientation of a school building provides the best opportunity for passive solar design, reduces cooling loads on the building, is optimum for playfields and best accommodates local prevailing winds. i) <u>Size layout option</u>. A rectangular site is preferred with the school complex facing north [less directly sun and perpendicular to the prevailing winds] for Tropical Guyana. j) <u>Area for expansion and Growth</u>: The school site should allow for infrastructure growth and allow for expansion. k) <u>Traffic Congestion</u>: Avoid location schools deep within the local community district where it can only be accessed by existing narrow village roads. This leads to traffic congestion, over-burden and due stress on local community roads, services and systems. l) What is the character of the surrounding areas (Residential, Industrial, Commercial, Agricultural, Urban, Sub-Urban, Rural)
<p>Safety of Location</p> <p>Topography & Land Features</p>	<p>Schools and hospitals are often used for emergency shelters in the event of natural disasters and other local and national emergencies. In addition to the safety needs of the regular school activities, safety conditions should be met at a minimum in selection of a site for a new school construction:</p> <ul style="list-style-type: none"> a) Assess risks from natural hazards (e.g. storm surges, landslides, heavy rainfall, Effect of high tide of river and ocean) and avoid building in hazards zones, b) In areas at risk from flooding the school should be placed on an elevated site. If an elevated site is not available, landfill should be considered and with other features such as elevation of buildings on stilts. c) Determine whether additional works are required to render the site viable for development or whether land use should be restricted to reduce vulnerability to natural hazards. d) Identify potential evacuation routes and access routes for emergency services. e) Place buildings at least 300ft away from stagnant water, as this may be a breeding location for mosquitoes and vector-borne diseases. Consider whether there may be seasonal sources of stagnant water, e.g. dried out rivers or ponds. f) As part of the assessment, check local flood records, and official data. Seek community info. On history of area flooding, storm winds and bush fires. Any hazard assessments carried out in previous stages should also be considered. g) If the area is at high risk, consider whether re-sitting to a location of reduced risk is an option. This will be defined by the local government based on availability and economic criteria. h) In mountainous / hilly areas [regions 7,8,9,10], check the slope stability (angle, soil type, drainage, etc.). i) Do not locate buildings in valleys / land depression zones. j) Assess soil characteristics. This will provide important information for determining foundation type (strip or slab); depth for drilling water wells; and digging holes for septic tanks (rocky ground is not very suitable). Undertake a Geotechnical Survey of the soil, shallow or deep borehole test be done.

	<ul style="list-style-type: none"> k) In low lying areas, consider whether land filling is needed to elevate new structures above likely flooding levels; identify the groundwater tables' depth. This will be important information for purposes of establishing foundation depth and size as well as the depth and distance between latrine system/septic and water tanks. l) Whenever possible, avoid building on water-logged soil. It can become liquefied and no longer able to sustain the building. m) Select a site composed of the firmest sub-soil available. Softer sub-soils amplify ground motion which will be transferred to foundations and school structures. Weak sub-soils are susceptible to soil liquefaction, which can damage foundations and cause collapse of the foundation and the building.
Utilities and services	<ul style="list-style-type: none"> a) Confirm that conditions and technical requirements for water supply, sanitation, waste management, and power supply can be achieved. b) Proximity of the site to a hospital and public transportation. c) Can students access the site easily [boat / river, paved roads, walking]? d) Is there transportation services that exist
Economical	<ul style="list-style-type: none"> a) Establish Land ownership being owned by the State, Amerindian title lands, private ownership and cost for acquisition. b) Access the budget costs the required land filling, drainage and other ground preparation c) Consider expenses for the provision of infrastructure on the site (e.g. roads, bridges, connection to water, sewage, electricity networks, etc.). d) Assess the site's existing buildings and infrastructure. Determine whether demolition works will be needed
Environmental	<ul style="list-style-type: none"> a) Ensure that there is adequate site drainage or this can be achieved, b) Assess the site's existing vegetation. Check whether it is necessary to clear trees or bushes from the site or, alternatively, to reforest the site to create a cooler micro-climate or to stabilize soils. c) The site should be away from sources of pollution and toxic or hazardous d) materials that may impact the inhabitants' health or safety. e) The school should be separated from sources of excessive noise, such as aircrafts, car traffic, railroads, sirens, factory machinery, etc. so that noise levels do not have detrimental impact on children. f) Identify and protect existing natural features and ecosystems. g) Respect and incorporate historic, cultural and artistic resources.

9.2 LAND SPACE FOR PHYSICAL PLANNING

SCHOOL GRADE	Max. school population	OPTION A Land Size ** (note 1) for New School Construction Project <i>[for LIMITED Recreation / outdoor facility]</i>	OPTION B Land Size ** (note 1) for New School Construction Project <i>[FULL Recreation / outdoor facility]</i>	Classroom area [approx.] In 1 & 2 flat building blocks	Circulation space [external / spaces between buildings]	Landscape /Recreation Space / parking and utilities [water etc]
A+	1,000 -800	5 acres [minimum]	7 -9 acres	50-60%	15-20%	10-15%*
A	799-550	4 acres	5.5 - 6.5 acres	50-60%	15-20%	10-15%*
B	549-400	3 acres	4.5 acres	50-60%	15-20%	10-15%*
C	399-250	2 acres	3.5 acres	50-60%	15-20%	15-20%*
D	249 and below	1.5 acres	2.5 acres	50-60%	15-20%	15-20%*
Recommended Physical Size	The length is 2 or 2.5 the width of the land for a rectangular size. L = 2W or preferred L = 2.5W <i>e.g. if the Width of the land is 300ft and the length is 600ft</i> <ul style="list-style-type: none"> The Land is facing north The land is perpendicular or near – to the wind flow. Main Building are in a E-W orientation 1 acre = 43,560 ft² / 4,046 M² 			Allow for 10% of planned site area for expansion <i>*The Minimum size of open recreation size for any school shall be ½ acre or 20,000 ft² for grades C and D and increased by 25ft per student for grades A and B. The open space shall be in a single plot.</i>		
Planning Data	<u>Building Space per Student</u> Recommended is 90-115 ft ² per student of total building area. The minimum is 80ft ² / per student [as per the new standards]					
	<u>Outdoor Space</u> Recommended Outdoor recreation space per student is 50-75 ft ² per student.					
	<u>Parking Spaces</u> 1 parking bay per classroom plus 1 parking bay for wheelchair for every 250 students. With a minimum of 2 nr.					
	**Note 1: <ol style="list-style-type: none"> The Area recommended, assumes a combination of 1 and 2 flats buildings. The Classroom blocks should be 2 flats. For single flat school buildings – the land area recommended must be increased by 20% 					

	<p>Note 2 <i>In New housing schemes being planned, It is recommended that an education zone be created with a large plot of land that will accommodate : primary, nursery and secondary schools – with a shared single large recreation space.</i></p>			
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APPENDIX A

- References
- Glossary of Terms

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TERMINOLOGY & DEFINITIONS

An alphabetical listing of all defined terms included in this document. The meaning is applicable throughout the Standards. Standards and Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code & standard text and the intended results.

General: Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter.

Interchangeability. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Energy Conservation Code*, *International Fuel Gas Code*, *International Fire Code*, *International Mechanical Code* or *International Plumbing Code*, such terms shall have the meanings ascribed to them as in those codes.

Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

GENERAL TERMINOLOGY

comply with	Meet one or more specifications of this standard.
if ... then	Denotes a specification that applies only when the conditions described are present.
may	Denotes an option or alternative.
shall	Denotes a mandatory specification or requirement.
should	Denotes an advisory specification or recommendation

DEFINITION

ACCESSIBLE

Describes a site, building, facility or portion thereof that complies with this standard.

ADAPTABLE

The ability of a certain building space or element, such as kitchen counters, sinks, and grab bars, to be added or altered so as to accommodate the needs of individuals with or without disabilities or to accommodate the needs of persons with different types or degrees of disabilities.

Architectural design

Design of the physical appearance, spatial layout, aesthetic features, fittings and fixtures and style of buildings and grounds. Generally speaking, architectural design must be integrated with engineering design to ensure structural integrity and safety standards are met.

Asset Management

A systematised approach to ensuring that assets such as school buildings, grounds and associated spaces are maintained in such a way as to protect their longevity, functionality, integrity and appearance. Asset management co-ordinates a database of assets with scheduled regular inspections of these to ensure that a program of remedial works, repairs or replacement is undertaken.

Area Measurement

Room or Module Areas. Room or module area will be measured net within the inside surfaces of main enclosing walls and partitions

Ancillary Rooms

Ancillary spaces that are less than 400 ft², such as seminar rooms, storage rooms, workrooms, and elementary cloakrooms, shall be measured as part of the main instructional space only when directly accessible from that space. Seminar rooms 40 m² and larger shall be measured as instructional space, regardless of access.

Bandwidth: Example ratings for bandwidth amount: 33.6 KBPS or under; 56 KBPS; 128 KBPS; 256 KBPS; 512 KBPS; 768 KBPS (.5 T1); 1.544 MBPS (T1); Ethernet; DS(1) or higher.

Broadcast video receivers: Example of broadcast video receiving device types: closed-circuit building-level cable system, external cable system.

BUILDING.

Any structure used or intended for supporting or sheltering any use or occupancy, consisting of a wall, roof and floor or any of them, or a structural system serving the function thereof. Some Standards limits the definition of a building as an enclosed structure of an area greater than 10m².

CLASSROOM [General]

A classroom for a secondary school is an established room in a school building where students in grades 7 to 11 are provided with education instructions and related education activities. In some designated school, classrooms for secondary school will include students of grades 12&13 [for CAPE].

It is a space where students can learn and grow academically, socially, and emotionally. Secondary school classrooms typically accommodate 20-30 students, and are furnished with desks and chairs for students, as well as a teacher's desk and chair. Classrooms may also have other furniture, such as bookshelves, cabinets, and storage units.

Technology integration: Classrooms should be equipped with the latest technology to support teaching and learning. For example, whiteboards, projectors, and computers can be used to deliver engaging and interactive lessons. Student-centered environment: Classrooms should be designed to promote student-centered learning. This means that the classroom should be arranged in a way that allows students to move around freely and collaborate with each other. It is also important to create a classroom environment where students feel safe and respected. Overall, a secondary school classroom should be a space where students can learn and grow to their fullest potential. It should be a place where students feel safe, supported, and challenged.

Computer Infrastructure

covers both devices and cabling. Devices supporting technology in schools include specialized equipment (such as switches, routers, modems, or codecs) that link computers or video hardware to networks. Infrastructure also refers to cabling, whether wire, fiber optic, or coaxial. In newer systems, links between computers are wireless, in which case infrastructure refers to receivers and transmitters.

Connection types: Refers to the kind of link between a computer and external networking resources. Example of connection types: dial-up via modem; wired LAN and router; wireless LAN and router; cable modem; satellite/modem hybrid link; full satellite (two-way) link.

CORRIDOR.

An enclosed exit access component that defines and provides a path of egress travel to an exit. A hallway is a corridor.

Climate change (CC):

The Inter-Governmental Panel on Climate Change (IPCC) defines climate change as: "a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use".

Contingency planning:

A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.

Critical Facilities

The primary physical structures, technical facilities and systems, which are socially, Economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.

Design according to best national practices

Incorporating engineering and architecture, standard Bills of Quantity, specifications and contract documents in the design to meet the Guyana Building code and standards.

Disability:

means a physical or mental impairment caused by the limitations of the body structure or of one or more bodily functions that restrict the ability to perform ordinary day-to-day activities (Laws of Guyana. Chp.36.05. 2010).

DORMITORY:

A dormitory (originated from the Latin word dormitorium), often abbreviated to dorm, is a building primarily providing sleeping and residential quarters, with shared bathroom facilities for large numbers of unrelated people such as boarding school, high school, college or university students. Related words are: Hall of Residence [for university students], Hostel [for students, travellers or workers], barracks [military terms]

DWELLING. A building that contains one or two *dwelling units* used, intended or designed to be used, rented, leased, let or hired out to be occupied for living purposes.

DWELLING UNIT.

A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

DIRECT ACCESS.

A path of travel from a space to an immediately adjacent space through an opening in the common wall between the two spaces.

Disaster:

A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster risk:

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

Disaster risk management:

The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

Disaster risk reduction:

The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

Early warning system:

The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss

Engineering design (Civil and Structural)

Calculation of the size and material composition of construction members such as beams, columns, trusses, footings, retaining walls, concrete slabs, road surfaces and so on and integrating these members into a composite structure such as a bridge, building, tower, dam, motorway, etc. Engineering design, overseeing of design processes and project management of engineered structures must be undertaken by degree qualified, experienced engineers.

Environmental best practices

Promotion of practical, inexpensive ways to sort waste and to dispose of it thoughtfully, to refrain from lighting fires in school grounds, to prevent water pooling and ponding, to prevent septic waste from entering ground water, streams and rivers, to prevent erosion and sediment runoff from construction sites, gardens and to manage reforestation projects etc.

Emergency Voice/Alarm Communications:

Dedicated manual or *automatic* facilities for originating and distributing voice instructions, as well as alert and evacuation signals pertaining to a fire emergency, to the occupants of a building.

EXISTING STRUCTURE.

A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building *permit* has been issued. For application of provisions in *flood hazard areas*, an existing structure is any building or structure for which the start of construction commenced before the effective date of the community's first flood plain management code, ordinance or standard.

EXIT.

That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways* and *ramps*, *exit passageways*, *exterior exit stairways* and *ramps* and *horizontal exits*.

EXIT ACCESS.

That portion of a *means of egress* system that leads from any occupied portion of a building or structure to an *exit*.

EXTERIOR WALL.

A wall, bearing or non-bearing, that is used as an enclosing wall for a building, other than a *fire wall*, and that has a slope of 60 degrees (1.05 rad) or greater with the horizontal plane.

FACILITY.

All or any portion of buildings, structures, *site* improvements, elements and pedestrian or vehicular routes located on a *site*.

FENESTRATION.

Skylights, roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors. Fenestration includes products with glass and non-glass glazing materials.

FIRE ALARM SYSTEM.

A system or portion of a combination system consisting of components and circuits arranged to monitor and annunciate the status of *fire alarm* or *supervisory signal-initiating devices* and to initiate the appropriate response to those signals.

FIRE AREA.

The aggregate floor area enclosed and bounded by *fire walls*, *fire barriers*, *exterior walls* or *horizontal assemblies* of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

FIRE DOOR. The door component of a *fire door assembly*.

FIRE RESISTANCE.

That property of materials or their assemblies that prevents or retards the passage of excessive heat, hot gases or flames under conditions of use.

FIRE WALL.

A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.

Fit for purpose

Designed and built to respond to the varying and agreed needs of major stakeholders and the specific physical conditions of the location. The designation 'fit for purpose' applies differently to the differing education sub sectors. Infrastructure needs and requirements that may be fit for purpose meet the baseline expectation for the intended purpose. The Standard Drawings and Specifications define and illustrate the criteria of 'fit for purpose'.

FLAMMABLE LIQUEFIED GAS.

A liquefied compressed gas which, under a charged pressure, is partially liquid at a temperature of 68°F (20°C) and which is flammable.

FLOOD or FLOODING.

A general and temporary condition of partial or complete inundation of normally dry land from:

1. The overflow of inland or tidal waters.
2. The unusual and rapid accumulation or runoff of surface waters from any source.

GENDER:

Gender refers to social, behavioral, and cultural attributes, expectations, and norms associated with being male or female.

Gross Area

The gross area of a building floor is defined as the floor area within the inside of the exterior walls, plus a standard allowance calculated by multiplying the building perimeter (measured at the interior face) times 150 mm.

The following area calculations shall be included in the definition of facility gross floor area:

- stair openings, measured at the first floor, including stairs to rooftop penthouses, elevator and duct shafts measured at each floor, mezzanines including access stairs, mechanical and electrical spaces, including all penthouse, basement and mezzanine locations (service spaces to be identified separately) , galleries and suspended walkways, including access stairs AND all other usable or accessible floor areas.
- Excluded areas from the calculations are as follows: industrial education storage mezzanines / crawl spaces or service tunnels / elementary covered play areas / industrial education covered work areas.

HABITABLE SPACE.

A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

HANDRAIL.

A horizontal or sloping rail intended for grasping by the hand for guidance or support. **HOT KITCHEN.** Refers to the enclosed space where cooking or baking is done.

Houseparent [HP]

A male and female [often husband & wife] who are in charge of male & female residents [boys and girls] and living in the boarding school dormitory. In the Local [MoE] context, the Houseparent attend to the management and affairs of the male & female occupants including general security and compliance with code of conduct and provide some parental support.

Hazard:

A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Maintenance

Monitoring, inspecting and taking care of assets on a regular basis to maintain the safety, functionality, quality, integrity and appearance of the specific infrastructure. Maintenance can include mowing, tree trimming, painting, cleaning, adjusting, lubricating, stripping rust, removing mould and so on.

Minimum standards

Standards developed and approved by the Ministry of Education, National Bureau of Standards and reference and inclusive of applicable international codes and standards [IBC, NFPA, ASHREE etc.] in accordance with nationally accepted practices for engineering, architecture, safety, environment, hygiene and disaster management and risk reduction standards. Minimum standard is so named and titled in each of the document referenced.

Mitigation:

The lessening or limitation of the adverse impacts of hazards and related disasters. National platform for disaster risk reduction: A generic term for national mechanisms for coordination and policy guidance on disaster risk reduction that are multi-sectoral and interdisciplinary in nature, with public, private and civil society participation involving all concerned entities within a country.

INFRASTRUCTURE

Applies to physical components of the built environment including buildings, fittings and fixtures, water supply and sanitation facilities, earthworks, ground works comprising sporting facilities, pathways, play and recreation areas, roadways, parking areas, fences and other outdoor fixtures.

INTERIOR FLOOR FINISH.

The exposed floor surfaces of buildings including coverings applied over a finished floor or *stair*, including risers.

INTERIOR WALL AND CEILING FINISH.

The exposed *interior surfaces* of buildings, including but not limited to: fixed or movable walls and partitions; toilet room privacy partitions; columns; ceilings; and interior wainscoting, paneling or other finish applied structurally or for decoration, acoustical correction, surface insulation, structural fire resistance or similar purposes, but not including *trim*.

INTUMESCENT FIRE-RESISTANT COATINGS.

Thin film liquid mixture applied to substrates by brush, roller, spray or trowel which expands into a protective foamed layer to provide fire-resistant protection of the substrates when exposed to flame or intense heat.

LOADS.

Forces or other actions that result from the weight of building materials, occupants and their possessions,

environmental effects, differential movement and restrained dimensional changes. Permanent loads are those loads in which variations over time are rare or of small magnitude, such as *dead loads*.

MASONRY UNIT. *Brick, tile, stone, glass block or concrete block conforming to the requirements*

MORTAR.

A mixture consisting of cementitious materials, fine aggregates, water, with or without admixtures, that is used to construct unit masonry assemblies.

OCCUPANT LOAD. The number of persons for which the *means of egress* of a building or portion thereof is designed.

OCCUPIABLE SPACE.

A room or enclosed space designed for human occupancy in which individuals congregate for amusement, educational or similar purposes or in which occupants are engaged at labor, and which is equipped with *means of egress* and light and *ventilation* facilities meeting the requirements of this code.

OPEN-ENDED CORRIDOR.

An interior corridor that is open on each end and connects to an exterior *stairway* or *ramp* at each end with no intervening doors or separation from the corridor.

PANIC HARDWARE.

A door-latching assembly incorporating a device that releases the latch upon the application of a force in the direction of egress travel. See "Fire exit hardware."

PERSON.

An individual, heirs, executors, administrators or assigns, and also includes a firm, partnership or corporation, its or their successors or assigns, or the agent of any of the aforesaid.

People with Disabilities

People who have mental or physical impairments that adversely affect their ability to carry out everyday activities on a substantial, long-term basis. These impairments can be visible or invisible. Disabilities can affect a person's mobility, manual dexterity, physical coordination, continence, ability to lift or carry objects, speech, hearing, eyesight, memory, and ability to concentrate, learn, or understand. Around 15% of the global population has some sort of disability, and prevalence is higher in developing countries (WHO, 2011).

POLICY

Policy is a deliberate system of guidelines to guide decisions and achieve rational outcomes. It is a statement of intent and is implemented as a procedure or protocol. Policies are generally adopted by a governance body within an organization. Policies can assist in both subjective and objective decision making. A policy is a course of action or a set of principles that is adopted or proposed by a government, party, business, or individual.

Preparedness:

The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

Prevention: The outright avoidance of adverse impacts of hazards and related disasters.

Project Management

A systematic approach to monitoring and controlling a project. Project management requires that careful planning, assessment and undertaking of all aspects of a project be done. This involves analysis, monitoring and controlling the project's scope,

cost, timeline, quality, risk, procurement, communications and human resource (HR) functions and integrating them into a seamless management process

Quality standards

Architectural design, construction quality, safety, access to safe and clean water, hygiene and fits for education purposes.

Rehabilitation

Replacement of worn, damaged, dangerous, obsolete, insanitary, dirty or unfit-for-purpose buildings by new works that may include painting, replacing worn parts, replacing wiring, plumbing and so on. Rehabilitation work usually concerns a whole structure, rather than an individual fixture or fitting and frequently involves a programme of works that may include both new work and repair work.

ROOF VENTILATION.

The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, *attics*, cathedral ceilings or other enclosed spaces over which a *roof assembly* is installed.

Resilience:

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Response:

The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Risk:

The combination of the probability of an event and its negative consequences. A risk is the chance of something happening that will have a negative effect. The level of risk reflects: the likelihood of the unwanted event and the potential consequences of the unwanted event.

Risk identification:

A thorough understanding of existing vulnerabilities, including their location and severity, is critical for the development and prioritization of investment programs and activities for hazard risk management. As the level of vulnerability can increase, or decline, with the aging of existing facilities and with new growth, determining underlying causes make it possible to eliminate or reduce new vulnerabilities as communities, countries and the region as a whole develop. A broad range of activities contributes to the identification and understanding of natural hazard risk: hazard data collection and mapping, vulnerability assessment, risk assessment and post-disaster assessment.

Risk assessment:

A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Risk management:

The systematic approach and practice of managing uncertainty to minimize potential harm and loss.

Risk Reduction:

Risk reduction activities are designed to mitigate damage from hazard events. These activities address existing vulnerability through such measures as retrofit, strengthening and relocation. Actions taken to reduce future vulnerability, such as the implementation and enforcement of building standards, environmental protection measures, land use planning that recognizes hazard zones and resource management practices, will provide significant benefits over the long term.

Risk reduction measures should lead to “safer” growth, rather than a further accumulation of vulnerability. However, they should always complement activities to safeguard individuals and resources exposed to existing vulnerabilities. Risk reduction measures can be directed towards physical, social and environmental vulnerability.

Retrofitting:

Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Repair

Restoring or replacing broken or damaged items, including fixtures, fittings, timber boards, electrical wiring, concrete pathways and soon. Repair work can form part of rehabilitation works. Repairs to structural members such as timber, concrete or steel beams or columns, retaining walls and other should only be done under the supervision of qualified, experienced engineers. Repairs to electrical fittings, specialist plumbing fittings and so on should only be done by qualified trades' personnel.

Sanitation

Measures used to contain and control organic and inorganic waste products including sewage, grey water and stagnant water or runoff. These facilities usually comprise latrines, wash basins, bathing facilities as well as drainage and storage systems such as septic tanks, sewer lines, transpiration beds, waste pipes, guttering, soakage pits, drainage channels and sub-soil drain lines.

School

An institution that is registered with the Ministry of Education to provide education following the rules and regulations of the Ministry of Education

School community

All stakeholders who have an interest in, or whose interests are directly affected by, a school. They include the principal or manager, teachers, students, school board, PTA, parents, guardians, grandparents and ancillary staff.

School infrastructure

All infrastructure belonging to schools (see definition above) such as classrooms, offices, libraries, storages, special workshops, laboratories, dormitories, toilets, recreation areas, accommodation facilities etc.

Stages

Stage areas are generally included as part of the main space served such as drama, physical education, or multi-purpose space. For example, a stage in a drama room would be included in the area of the drama module. Small stages which exist in many elementary gymnasiums, that are too small to be used for physical education, may be included as design space. If a stage is being used for some other purpose for example, storage, the space should be included under function of its current use.

Student or Pupil

A "Student or Pupil " means a person who is a registered student of, and is pursuing a course of study on a full-time basis at an educational institution managed or approved by The Ministry of Education

Sex: The biological categories of male, female, and intersex to which humans belong, based on sex characteristics and chromosomes.

SMOKE ALARM. A single- or multiple-station alarm responsive to smoke. See “Multiple-station smoke alarm” and “Single-station smoke alarm.”

SMOKE DETECTOR. A *listed* device that senses visible or invisible particles of combustion.

STAIR. A change in elevation, consisting of one or more risers.

STAIRWAY.

One or more *flights of stairs*, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

Structural measures: Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard-resistance and resilience in structures or systems.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Standard: A **standard** is a set of technical definitions, specifications, and guidelines. They function as instructions for designers, planners, managers and builders. A standard speaks about the materials, process, designs, structure, etc. In brief, standards guide how to do something.

Standards are usually created by individual companies, organizations or countries. They are not legalized. A standard develops into a code when it is adopted by a set of government bodies and gets legalized. Some examples of standards include ASTM International standards, and ISO standard.

Voluntary standards are a body of information guidelines, established by a private-sector body and made available to persons or organizations, to use.

Industry standards are a body of information guidelines, norms and a set of criteria within an industry relating to the standard functioning and carrying out of operations in their respective fields of production. In other words, it is the generally accepted requirements followed by the members of an industry.

Mandatory standards – a mandatory standard requires compliance because of a government statute or regulation (discussed below), an organization internal policy or contractual requirement. Failure to comply with a mandatory standard's guidelines can cause legal repercussions.

Difference between a CODE and a STANDARD

Standards and codes refer to the definitions and guidelines that specify or clarify technical procedures and their requirements. The main difference between code and standard is that standard is a *set of technical definitions, specifications, and guidelines* whereas code is a model a set of rules that knowledgeable people recommend for others to follow. It is not a law, but can be adopted into law.

Codes are generally accepted sets of rules that tell you what you need to do but it doesn't explain how it should be done.

Standards provide the "how to" of executing codes and tends to be a more detailed elaboration, the nuts and bolts of meeting a code. **Specifications**, unlike codes or standards, outline the requirements of a specific company or product. **Regulations**, which can incorporate codes and standards, are mandated by a government body and required, by law, to be complied with.

Vulnerability:

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

Vulnerability assessment.

Vulnerability assessments are systematic examinations of building elements, facilities, population groups or components of the economy to identify features that are susceptible to damage from the effects of natural hazards. Vulnerability is a function of the prevalent hazards and the characteristics and quantity of resources or populations exposed to their effects; it can have social, economic, physical and environmental components.

WATER-RESISTIVE BARRIER.

A material behind an *exterior wall covering* that is intended to resist liquid water that has penetrated behind the exterior covering from further intruding into the *exterior wall assembly*.

ZONE.

A defined area within the protected premises. A zone can define an area from which a signal can be received, an area to which a signal can be sent or an area in which a form of control can be executed.
