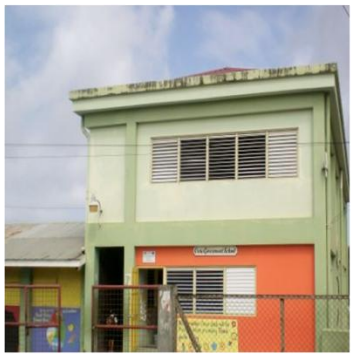
MODEL

Safe School Programme for the Caribbean

A Toolkit



CDEMA
CARIBBEAN DISASTER EMERGENCY MANAGEMENT AGENCY
Resilient States · Safer Lives

The Caribbean Disaster Emergency Management Agency (CDEMA)
Model School Safety Programme for Caribbean Schools Toolkit

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Sincere appreciation to CDEMA Project Coordinator, Ms. Gayle Drakes, for her input and guidance. Thanks also to the National Disaster Organisations and Ministries of Education in Anguilla, Barbados and St. Vincent and the Grenadines. The Safety Assessment Tool was applied to schools in these countries and valuable insight gained and feedback obtained into the application process and the tools. Special appreciation to the CDEMA Participating States who took the time to complete the online survey developed as part of the overall project.

CDEMA MODEL SAFE SCHOOL PROGRAMME TOOLKIT USER GUIDE

The Caribbean is one of the most disaster prone regions in the world. Various types of natural and man-made hazards can impact the region including floods, hurricanes, earthquakes, tsunamis, droughts, volcanic eruptions in some countries, infectious diseases and climate change and all of the varied impacts associated with it. Disasters and the associated impacts threaten lives and the economic, social, developmental and environmental progress made in the region over the past decades. Educational institutions are no exception. Ministries and Departments of Education, as well as school administrators throughout the region must be fully cognizant of the impact that natural and human-induced hazards may have on the safety of students, teachers and administrators. In several Caribbean countries schools are used as shelters during times of disaster which results in damage to facilities and disrupted learning. Planning for school safety is a challenge; as schools continue to plan and prepare for hazard events that could have severe consequences, identifying the appropriate measures to reduce risks is an important step and must be carried out systematically. Schools need to use appropriate tools to capture the relevant data required to inform the development and maintenance of customised plans and programmes and to identify functional/operational, non-structural and structural deficiencies.

This document provides a Toolkit which includes the various elements of the Model Safe School Programme for CDEMA Participating States. It is designed to assist Participating States with implementing processes that result in safer and greener educational facilities. A policy that can be adopted by governments and Ministries of Education is included in **Section 1**. The policy includes an appendix that provides guidance for new construction as it is more cost effective to plan for and include safe and green initiatives during construction than after. Tools for assessing the level of safety and greenness of schools are included in **Section 2**. **Section 3** provides a template Emergency/Disaster Plan that can be adapted to a school's specific situation and hazard context. **Section 4** provides a list of tools and guidance documents that can be utilized to create safer and greener institutions. More detail on each section is provided below.

SECTION ONE: The Policy

The policy comprises the initial section of the Toolkit. The vision of the Policy is to create "a **S**afe, **S**ustainable and **S**ecure environment for learning and play for children and school administrators in CDEMA Participating States." The goal of the Model Safe School Programme for CDEMA Participating States is to create safe, secure/protective and green educational institutions from pre-primary to tertiary levels, including private and public institutions through the development of simple, applicable and adaptable tools. The Policy will provide the context for the amendment of existing legislation to integrate Disaster Risk Reduction and environmental protection measures. This Policy, along with the

assessment tools will provide the framework for the eventual development of procedures to enhance school safety throughout the region.

SECTION TWO: The Assessment Tools (Safety and Green Checklists)

There are two (2) main assessment tools included in the Model; the *Safety Assessment* and the *Green Assessment*. The Safety Assessment contains a total of three (3) checklists. Table 1 seeks to gather information related to the schools' location, telephone number, email, demographics, construction, disaster and emergency training and disaster history. Table 2 is comprised of a series of questions built around international safety standards and covers four (4) educational institution-types; early childhood (which includes day care centres and pre-schools), primary, secondary and tertiary institutions. Questions fall under the following categories: Disaster Planning; Emergency Planning; Safety Administration; Medical Emergencies; Physical Plant; Physical Safety; Protection of the Person and Hazardous Chemicals and Materials. Table 3 seeks to collect information on the condition of school building(s) and grounds that could potentially harm staff and students and which may make the school more vulnerable to hazards. The major categories of the Building Conditions Assessment include: Exterior Building Elements; Interior Building Elements; Mechanical Systems and Safety/Code Compliance. Specific detail about the roof, ceiling, walls, windows, doors, lighting, means of exit and plumbing and electrical are sought. See Section 1 for more information on the Safety and Green Assessment Tools.

The Green Checklist is presented in Table 4. The checklist assesses schools for the level of sustainability and environmental responsibility. The overarching green themes are: Sustainability Management; Natural Resources, Indoor Environment, Hazardous Chemicals and Materials, Facility and Grounds and Food Service.

The checklists are devised so that areas of weakness can be easily identified and specific improvement plans developed.

SECTION THREE: Template Emergency/Disaster Plan

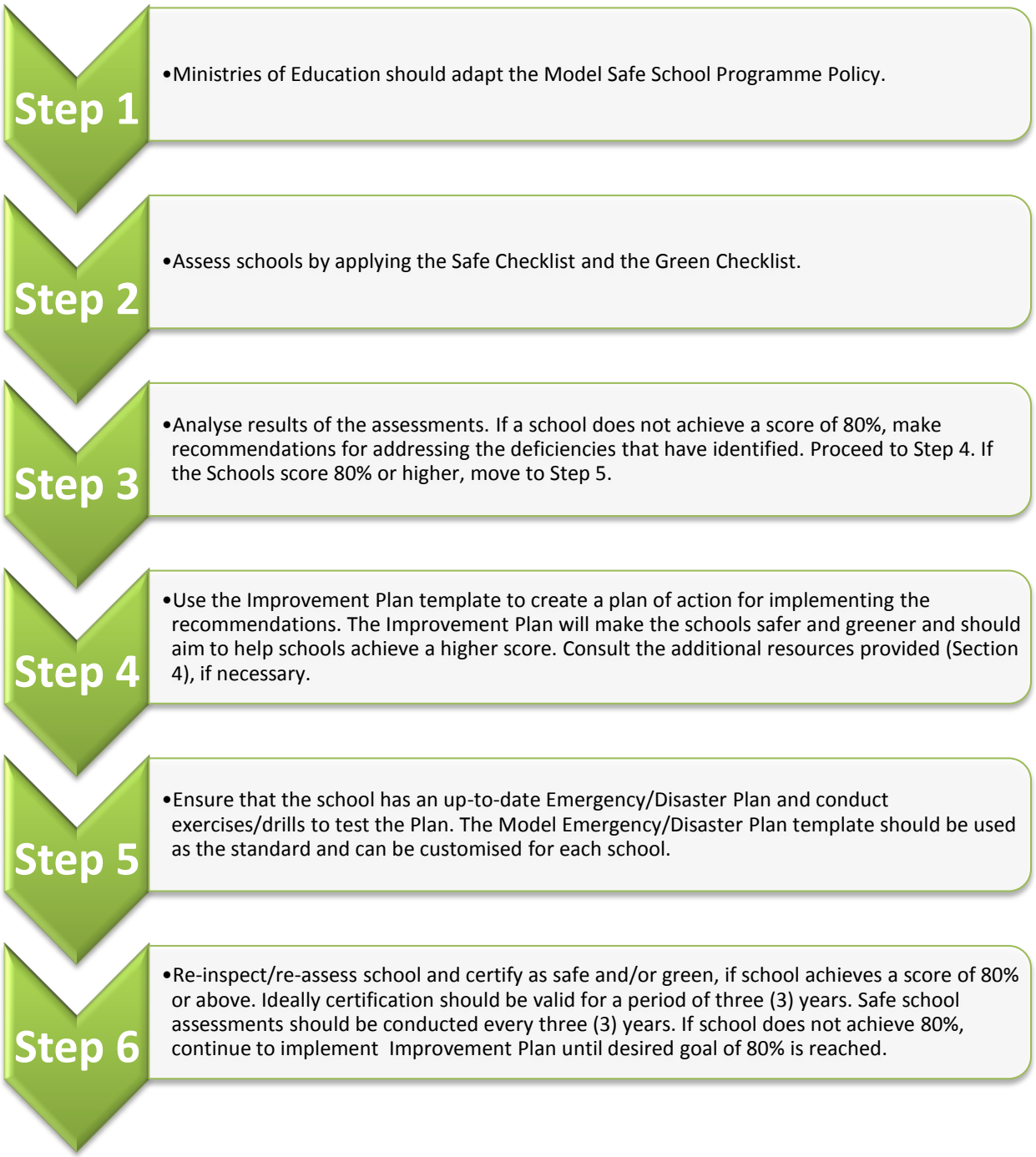
A Template Emergency/Disaster Plan is provided in Section 3 of the Toolkit. It is a comprehensive template and will require customization to suit the conditions of different educational institutions. It is recommended that schools work with their respective National Disaster Offices to customize the template. The template also includes a Workplace Risk Assessment and a Hazard Vulnerability Assessment. These are to be completed prior to the finalization of the Emergency/Disaster Plan. Elements of the Workplace and Hazard Vulnerability Assessments that do not apply to the school should be deleted.

SECTION FOUR: Resources

Section 4 provides a list of additional resources to guide Ministries of Education and schools in creating safer and green environments.

Figure 1 below provides a step-by-step guide for utilizing the toolkit.

Figure 1 A step-by-step guide to using the Toolkit



SECTION ONE:

THE POLICY

CDEMA Model Safe School Programme for Caribbean Schools

Toolkit

Contents

ACKNOWLEDGMENT 1

ACRONYMS x

FOREWORD 1

ACKNOWLEDGMENT 2

PROLOGUE 3

1. CONCEPTUAL FRAMEWORK 5

1.1. Guiding Principles 5

1.2. By focusing on safe and green interventions, educational infrastructure, students, teachers, administrators, other personnel and communities will benefit. Safety Approach 6

1.2.1 Special Considerations 7

1.3. Green Approach 10

2. LEGAL FRAMEWORK 13

2.1. Stakeholder Involvement 13

3. RATIONALE AND PURPOSE OF THE POLICY 14

3.1. Vision 14

3.2. Goal 14

3.3. Policy Themes 14

1.2.2 3.3.1 Safety 16

1.2.3 3.3.2. Green 18

4. FINANCING OPTIONS 20

5. COMPLIANCE 20

5.1. Evaluation and Certification Process 20

5.2. What happens if the school is in non-compliance with a series of standards? 21

6. Sustainability 23

APPENDIX 1 24

SAFETY STANDARDS 24

APPENDIX 2 31

GREEN STANDARDS 31

APPENDIX 3 34

GUIDELINES FOR SUSTAINABLE/GREEN CONSTRUCTION 34

1.2.4 Site Selection 34

1.2.5 Site and Building Design 35

1.2.6 Storm Water Design: Quantity 37
1.2.7 Storm Water Design: Quality 40
1. Structure of the Assessment 1
1.1 Table 1 - Vital Information Required for the Effective Management of Safety at Schools 1
1.2 Table 2 - School Safety Compliance Assessment 1
1.3 Table 3 – Building Condition Assessment 3
1.4 Table 4 – Green Assessment 3
2. Critical Questions which must be addressed to certify a school 4
3. Certification Threshold 4
4. Improving Based on the Assessments 5
INEE Guidance Notes on Safer School Construction 48
The United Nations Office for Disaster Risk Reduction, Prevention Web; Manual on retrofitting of existing vulnerable school buildings - assessment to retrofitting 48
Handbook of typical school design 48
Economic Commission for Latin America and the Caribbean, Disaster risk reduction in the education sector among selected Caribbean Small Island Developing States 48
The World Bank; School-based Violence Prevention in Urban Communities in Latin America and the Caribbean 49

Figures

Figure 1 A step-by-step guide to using the Toolkit 4
Figure 4: Relationship between Safety Themes, Objectives and Strategies 7
Figure 5: Illustration of Safety Themes and Strategies 9
Figure 6: Relationship between Green Themes, Objectives and Strategies 10
Figure 7: Illustration of Green Themes and Strategies 12
Figure 8: Policy Framework: Vision, Goal, Approach and Themes 15
Figure 9: School Safety and Greening Certification. 21
Figure 10: Process for certifying a school. 22
Figure 11: Precipitation on Vegetated versus Developed Site 37
Figure 12: Cross-section of a Typical Infiltration Trench 38
Figure 13: Cross Section of Retention Cell/Rain Garden 38
Figure 14: A Grassed Swale 38
Figure 15: Installed Permeable Pavers 39
Figure 16: Sets and subsets of questions comprising a questionnaire per educational institution type. 2
Figure 17: School Safety and Greening Certification. 5

Tables

Table 1: Safety Objectives, Strategies and Performance Indicators 16
Table 2 Green School Objectives, Strategies and Performance Indicators 18
Table 3 School Safety Standards 24
Table 4 Green Sections and Standards 31

ACRONYMS

CPR	Cardiopulmonary Resuscitation
DOE	Department of Education
DMO	Disaster Management Office
DRR	Disaster Risk Reduction
ECLAC	Economic Commission for Latin America and the Caribbean
MOE	Ministry of Education
NDO	National Disaster Office
PWD	Public Works Department
UNICEF	United Nations Children's Education Fund

FOREWORD

The Safe School Programme for CDEMA Participating States Policy recognizes the need for educational institutions to be safe for both able-bodied and individuals with physical and mental limitations given the vulnerability of the region to numerous natural and man-made hazards. In addition to schools being places of teaching and learning, in many countries in the region, schools also serve as emergency shelters making the need for safety more critical. A 'green' element is included in this policy which will allow schools to become more environmentally friendly/sustainable thereby reducing contributions to Climate Change, environmental degradation and resource depletion.

The objective of the policy is to create safe, sustainable and secure leaning and teaching environment for children, teachers and school administrators in CDEMA Participating States. The goal of the programme is to create safe and green educational institutions from pre-primary to tertiary levels, both private and public, through simple, applicable and adaptable tools. Importantly, this policy and associated tools have to been endorsed and supported by the Ministry of Education. Various other ministries and agencies including the National Disaster Office, school administrators and maintenance ministries/agencies will have to be integrally involved in efforts to make schools safer.

This Policy, if implemented fully, will provide a system for making schools safer and greener in the region.

This Policy Framework has my absolute endorsement and should be the first point of reference for all involved in education, school administration and maintenance.

_____

Minister of Education

ACKNOWLEDGMENT

Utilize this space to acknowledge ministries, departments, schools and individuals who were instrumental in adapting the policy to make the educational sector safer and greener.

PROLOGUE

The Caribbean is one of the most disaster prone regions in the world. Various types of natural and man-made hazards can impact the region including floods, hurricanes, earthquakes, tsunamis, droughts, volcanic eruptions in some countries, infectious diseases, climate change and all of the varied impacts associated with it. Disasters and the associated impacts threaten lives and the economic, social, developmental and environmental progress made in the region over the past decades. Educational institutions are no exception. Ministries and Departments of Education, as well as school administrators throughout the region must be fully cognizant of the impact that natural and human-induced hazards may have on the safety of students, teachers and administrators. The Economic Commission for Latin America and the Caribbean (ECLAC) notes that the majority of Caribbean countries utilize schools as shelters during times of disaster and that oftentimes school property is damaged and teaching is disrupted[1]. Planning for school safety and ensuring that the identified measures are understood and implemented presents a challenge. As schools continue to plan and prepare for hazard events that could have severe consequences, identifying the appropriate measures to reduce risks is an important step and must be carried out systematically. Schools need to use appropriate tools to capture the relevant data required to inform the development and maintenance of customised plans and programmes.

This document includes a Safe School Policy to assist CDEMA Participating States in taking the necessary steps to improve the safety of schools in the region. A green element has been included to help guide schools in being more environmentally friendly/sustainable. Guidance on new school construction has also been provided as it is more cost effective to include safety and green elements during the initial planning and construction rather than during a retrofit. This Policy, along with an assessment tools will provide the framework for the eventual development of procedures to enhance school safety throughout the region. The Policy in particular, will provide the context for the amendment of existing legislation to integrate Disaster Risk Reduction measures.

The safe and green assessment tools included form an integral part of the emergent system being developed to provide greater protection for children in school environments. These tools address parameters of importance such as the location, design, construction, retrofitting, environment, playgrounds, structural and non-structural features, evacuation and disaster planning procedures and also provide school administrators with measures which they can take when planning and mitigating various hazard impacts. The application of the assessment tools on a consistent and regular basis will assist in establishing a baseline and in identifying actions that will assist in bringing schools into compliance with established standards for safety and sustainability as outlined in the Policy.

The promotion of a culture of safety through the development and use of the Policy and assessment tools at any level, from early childhood to tertiary institutions, must be seen in the context of legislatively mandated provisions to ensure the welfare of employees, students and the public,

[1] Economic Commission for Latin America and the Caribbean. 2009. Disaster Risk Reduction in the Education Sector among selected Caribbean Small Island Developing States. http://www.cepal.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/0/38240/P38240.xml&xsl=/publicaciones/ficha-i.xsl&base=/publicaciones/top_publicaciones-i.xsl

irrespective of the educational level and whether they are public or private institutions. It is the duty of all educational facilities to ensure the well-being of individuals frequenting their institution. All children regardless of physical or mental/cognitive ability have the right to an education, therefore, it imperative that schools are properly outfitted and designed to accommodate individuals with limitations. Additionally, throughout the region, schools serve as emergency shelters, so there is added importance for these facilities to remain functional and accessible to all members of the community and in a state of readiness at all times.

Implementation of measures to facilitate the management of safety in schools must become part of the culture of doing business at any educational institution. The loss of lives and property can be mitigated through the presence of procedures that can be continuously used to assess systems and measures employed at educational facilities. Promoting a comprehensive approach to integrating disaster management initiatives into management and operational practices can also lead to safer schools. Guidelines and practices must therefore be available to assist educational administrators to meet the challenges of effectively planning and managing:

a) their current physical plant and facilities to address any deficiency which may increase the risk or prevalence of a hazard;
b) their operational activities to allow for adaptation to the effects of climate change and other environmental impacts; and
c) Emergency procedures to allow for adequate and efficient response.

1. CONCEPTUAL FRAMEWORK

1.1.Guiding Principles

Schools are places of learning and teaching that generally are occupied by a number of individuals. They also comprise the largest public investment made by any Government. In many Caribbean nations, they also serve as emergency shelters and therefore it is imperative that they are safe. A 2009 report by the United Nations International Children's Education Fund (UNICEF) indicates that in the Caribbean 'public expenditure on Education as percentage of the total governmental expenditure ranges from 11.76% to 16.97%.'[2] An Organisation of Eastern Caribbean States (OECS) report supports this view when noting that in 2010-2011 expenditure on education as a percent of national budgets ranged from 11.90% to 17.4%. Montserrat allocated 6% to education.[3] Recent CDEMA PS budget allocations for education were researched and a percentage of overall expenditure calculated. Antigua allocated 16.21% of the budget to education, St. Vincent and the Grenadines, 17.4%, the British Virgin Islands, 17.9%, St. Kitts and Nevis, 13.8%, Grenada 11.8% and St. Lucia 14.3%. Although educational institutions fall under the purview of the Ministries of Education, Safety and 'Greening' of these facilities will have to involve other agencies and departments.

NOTE: Please insert additional information relevant to the national context, to substantiate the rationale for investing in school safety including information related to the total number of students, number of male and female students, number of facilities, government-owned/supported or private, etc. Also include budget allocations for the educational sector and educational programmes that may fall under the portfolio of other ministries. Please also include recent events that may have affected schools and the cost/impact/loss of the event.

In a region that is prone to various hazards, many schools may be located in hazardous locations. Wherever possible, Hazard and Vulnerability Assessments should be performed for schools to guide the inclusion of preparedness and mitigation measures in the design, construction and operational phases. Disaster and emergency planning should be founded on a thorough understanding of the specific hazards faced by the education sector in general and at the individual institutions.

Efforts aimed at reducing the environmental impact of the education sector are also needed. The operations of facilities and their procurement practices should be assessed as these greatly impact on sustainability activities. The premise of the Model Safe School Policy is based on the following guidelines:

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[2] Koen RosselCambier and Leopoldo Romagnoli. United Nations International Children's Educational Fund. 2009. Status of Social Investment in Children in the Eastern Caribbean – An Overview. http://www.unicef.org/easterncaribbean/Status_of_Social_Investment_in_Children_in_the_Eastern_Caribbean.pdf

[3] Organisation of Eastern Caribbean States. 2013.

http://www.oecs.org/our-work/units/edmu

1. Safe school Policy should be in compliance with the Regional CDM Strategy and Programming Framework is contributing to the achievement of "Safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management".
2. This Policy should be endorsed by the Ministries of Education in all CDEMA Participating States in order to engender safer and more environmentally sustainable educational institutions.
3. Safe schools programmes/initiatives should be in compliance with applicable laws, regulations and best management practices to help reduce risks.
4. The Safe School Programme should be communicated to parents, teachers and school administrators in all CDEMA Participating States to promote the benefits of the Policy.
5. Necessary renegotiation or amendments to existing strategic partnerships which the Ministry of Education or the National Disaster Management Organisation has with public and private sector agencies or other civil society organisations at the national, regional or international levels should be pursued.
6. New funding requirements may result from the Policy, and reallocations of existing budgets together with new funding sources to support the implementation of the Policy should be considered.
7. Programme should be ongoing to ensure continued and improved school performance.
8. Safe school Policy should comply with the UN Convention on the Right of the Child which promotes active investigation in the pursuit of zero incidents (violence, accidents) occurring in schools.
9. The identification of risks and the implementation of reasonable mitigation, preparedness, monitoring, transparent auditing and reporting are required in the safe school Policy.
10. The use of environmentally safe actions in school environments contribute to climate adaptation initiatives and environmental protection activities and should be promoted.
11. A school safety recognition programme aimed at recognising commitment, innovation and leadership in the Education Sector should be part of any safe and green strategy being developed for implementation in the Education Sector.

1.2. By focusing on safe and green interventions, educational infrastructure, students, teachers, administrators, other personnel and communities will benefit. Safety Approach

The Safety portion of the Model Safe School Policy for CDEMA Participating States is comprised of a broad set of themes, objectives and strategies relevant to safety matters, which impact operations at any educational institution. **Figure 1** provides a depiction of the relationship between themes, strategies and objectives.

Figure 1: Relationship between Safety Themes, Objectives and Strategies

The Safety section of the policy is supported by assessment tools which will enhance knowledge of the status of compliance and a set of core standards that can be used to monitor and evaluate progress over time. Please see the **CDEMA Model Safe School Programme Assessment Checklists**, **Table 1-3** for the Safety Assessment Tools. Please note that Table 1 is not a checklist. **Appendix 1** provides the Safety Standards.

The standards outlined in the Policy should be achieved over time and must be measured every three (3) years to effectuate the progress of the policy implementation. **Figure 2** further illustrates how the various themes and strategies related to the Safety Approach are connected. The overarching safety themes are Management of Safety Matters; Security; Safety and Physical Plant. Strategies are developed under these general themes. Management focuses on delegation of responsibility, assessments, development of plans, monitoring, training, supplies, and works. Security deals with the safety of the premises, movement of vehicles and the monitoring and recording of people entering the grounds. Safety deals with work conditions, violence to staff and among students, lifting of heavy objects and food handling. Physical plant pertains to maintenance of buildings and grounds and hazardous materials and chemicals.

1.2.1 Special Considerations

All individuals have a right to an education regardless of ability. The United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities notes that “States should recognize the principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities, in integrated settings. They should ensure that the education of persons with disabilities is an integral part of the educational system.” It is further noted that:

- *General educational authorities are responsible for the education of persons with disabilities in integrated settings. Education for persons with disabilities should form an integral part of national educational planning, curriculum development and school organization.*
- *Education in mainstream schools presupposes the provision of interpreter and other appropriate support services. Adequate accessibility and support services, designed to meet the needs of persons with different disabilities, should be provided.*
- *Parent groups and organizations of persons with disabilities should be involved in the education process at all levels.*
- *In States where education is compulsory it should be provided to girls and boys with all kinds and all levels of disabilities, including the most severe.*
- *Special attention should be given in the following areas:*
  - *Very young children with disabilities;*
  - *Pre-school children with disabilities;*
  - *Adults with disabilities, particularly women.*
- *To accommodate educational provisions for persons with disabilities in the mainstream, States should:*
  - *Have a clearly stated policy, understood and accepted at the school level and by the wider community;*
  - *Allow for curriculum flexibility, addition and adaptation;*
  - *Provide for quality materials, ongoing teacher training and support teachers.*[4]

In light of above, all efforts to improve safety at educational institutions must consider physically and mentally challenged individuals. Furthermore, if the facility is used as an emergency shelter consideration must be extended to all individuals in the community who may need to use the facility. Therefore, proper access and sanitary facilities must be considered and provided.

[4] United Nations. Standard Rules on the Equalization of Opportunities for persons with Disabilities. http://www.un.org/esa/socdev/enable/dissre04.htm

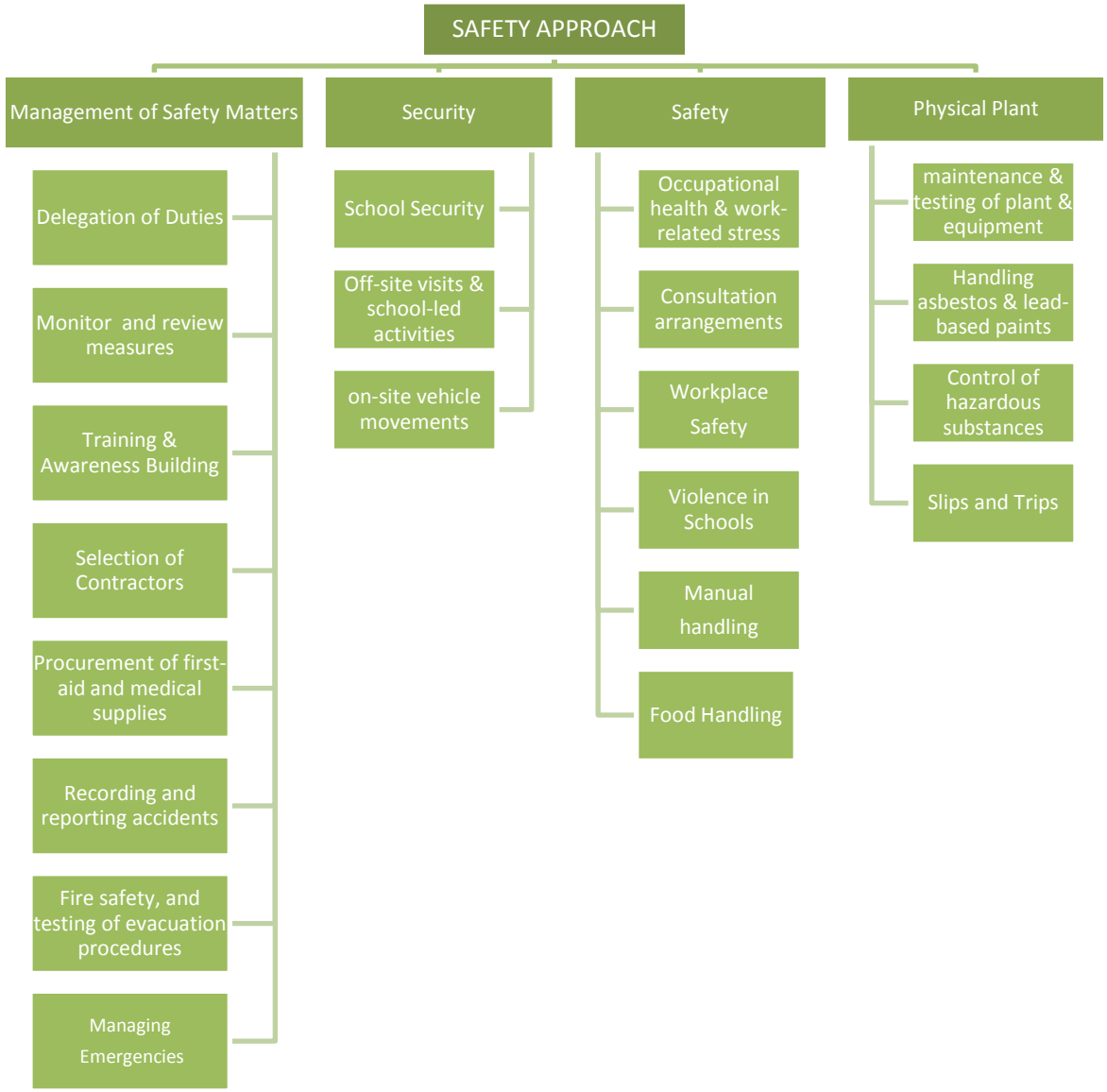


Figure 2: Illustration of Safety Themes and Strategies

1.3.Green Approach

The Green portion of the Model Safe School Policy for CDEMA Participating States is comprised of a broad set of themes, objectives and strategies relevant to environmental responsibility and sustainability. The aim is to reduce the negative impact of individual institutions and the overall education sector on the environment and to assist them in adapting to changes in climatic conditions. **Figure 3** provides a depiction of the relationship between themes, objectives and strategies under the Green Approach. **Appendix 2** provides the Green Standards.

The Green section is supported by an assessment tool which provides a baseline on how the objectives and strategies will be measured. The assessment tool will enhance knowledge of the status of compliance with a set of core standards and will provide a basis for determining areas that need improvement. Please see the **CDEMA Model Safe School Programme Assessment Checklists**, **Table 4** for the Green Assessment Tool.

Figure 3: Relationship between Green Themes, Objectives and Strategies

The standards should be achieved over time and must be measured every three (3) years to effectuate the policy. **Figure 4** further illustrates how the various themes and strategies related to the green Approach are connected. The overarching green themes are: Sustainability Management; Natural Resources, Indoor Environment, Hazardous Chemicals and Materials, Facility and Grounds and Food Service. Sustainability management pertains to formulating supporting policies, raising awareness and establishing a baseline from which improvements can be measured. Natural Resources focus on reducing water and energy use and purchasing practices. The focus of Indoor Environment is maintaining indoor conditions conducive to teaching and learning. Proper labelling, handling, use and storage and the identification and proper management of hazardous materials such as asbestos is the

focus of Hazardous Chemicals and Materials. Facility and Grounds pertains to the proper pest management in an effort to reduce or eliminate the use of and exposure to harmful chemicals, proper waste storage and disposal and overall maintenance. The focus of Food Service is the sustainability of the foods used and proper management of food waste.

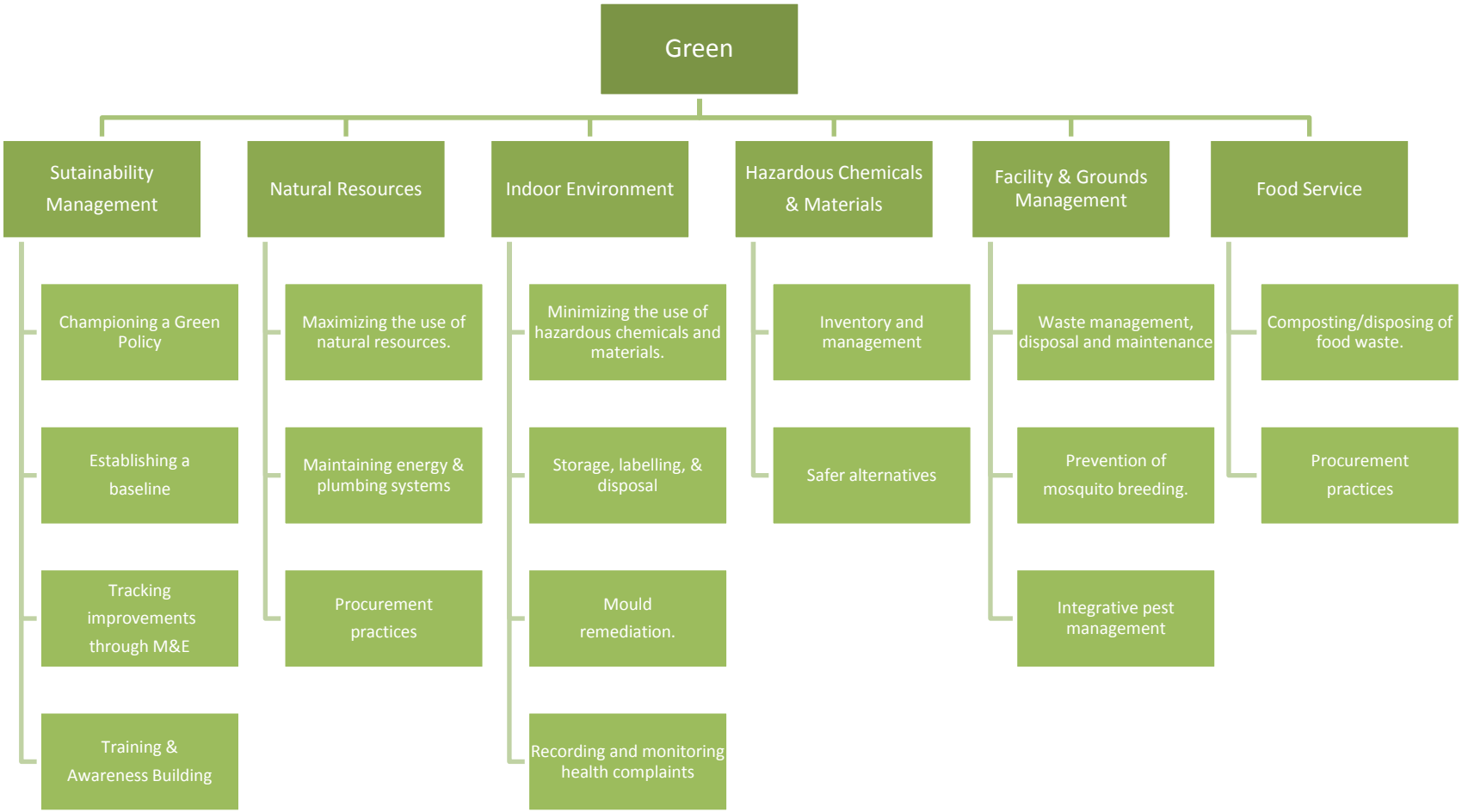


Figure 4: Illustration of Green Themes and Strategies

2. LEGAL FRAMEWORK

The legal framework for this Policy lies in Education and Labour Acts used in CDEMA Participating States and in laws establishing disaster management authorities/agencies. Existing legislation speaks to the need for providing a safe environment that facilitates and enhances teaching and learning. Several islands in the Eastern Caribbean have made use of the Model Education Bill provided by the Organisation of Eastern Caribbean States (OECS) that provides for a safe environment for students, having emergency plans, the involvement of teachers in carrying out the directives in emergency plans, their roles in ensuring safety on and off campus and in reporting disease outbreaks.[5] The Model also lays out expectations for private school as it pertains to having suitable accommodations, proper teaching devices and safe premises. The model also points to teachers having an adequate working environment that is free from abuse, molestation, assault and battery while performing their duties and the availability of suitable teaching facilities.

Labour laws in CDEMA participating States cover the obligation of the employer, in this case the Ministry of Education and private educational institutions, to provide a safe working environment for employees such as teachers and staff.

The legal framework that supports greening efforts is more general. Policies and legislation that call for sustainable development and environmental protection facilitate the greening approach described herein. For instance, understanding the need to make sustainability a priority, the Government of Saint Vincent and the Grenadines formulated the National Energy Policy and Energy Action Plan in 2009 and 2010, respectively. The policy and the plan guides and supports the development of renewable energy sources and recognises the need for energy conservation. One of the performance indicators for the green approach of this policy is to formulate an energy conservation plan. Several countries in the region have similar policies and plans.

2.1.Stakeholder Involvement

In order to fully implement a Policy that aims to create safe and green schools, the Governments of CDEMA Participating States recognise the need for such and understand that elements of the Policy can be used to teach children about disaster risk reduction, safety in schools, Climate Change adaptation and environmental sustainability. This in turn will lead to improvements in disaster preparedness and response and in overall environmental responsibility.

It is important that Ministries of Education support initiatives that promote the elements of the policy; however, they cannot do this alone. National Disaster Offices will also need to lend support in the development of school hazard profiles as well as disaster/emergency plans and procedures. Building and maintenance authorities will also need to be supportive of the initiatives.

The following ministries and units contained within will be of critical importance to any safe and green programme being developed for implementation within the Education Sector:

[5] Organisation of Eastern Caribbean States. Model Education Policy for Organization of Eastern Caribbean States. http://www.oecs.org/edmu-documents/cat_view/29-education-development/72-resources?start=5

- Ministries of Finance
- Ministries of Education
- Ministries of Social Development/Community/Gender
- Ministries of National Mobilization/Transformation
- National Disaster Organisations
- Ministries of Labour
- Public Works Departments or similar
- Planning and Building Authorities or similar
- Ministries of Health
- Ministries of the Environment

3. RATIONALE AND PURPOSE OF THE POLICY

3.1.Vision

A **S**afe, **S**ustainable and **S**ecure environment for learning and play for children and school administrators in CDEMA Participating States

3.2.Goal

The goal of the Model Safe School Programme for CDEMA Participating States is to create safe, secure/protective and green educational institutions from pre-primary to tertiary levels, including private and public through the development of simple, applicable and adaptable tools.

3.3.Policy Themes

The Model Safe School Policy is based on eleven (11) themes, which outline how the national school safety and green Policy will be applied. The elements are consistent with regional and international best practices on safety and green compliance in critical institutions. The themes are as follows:

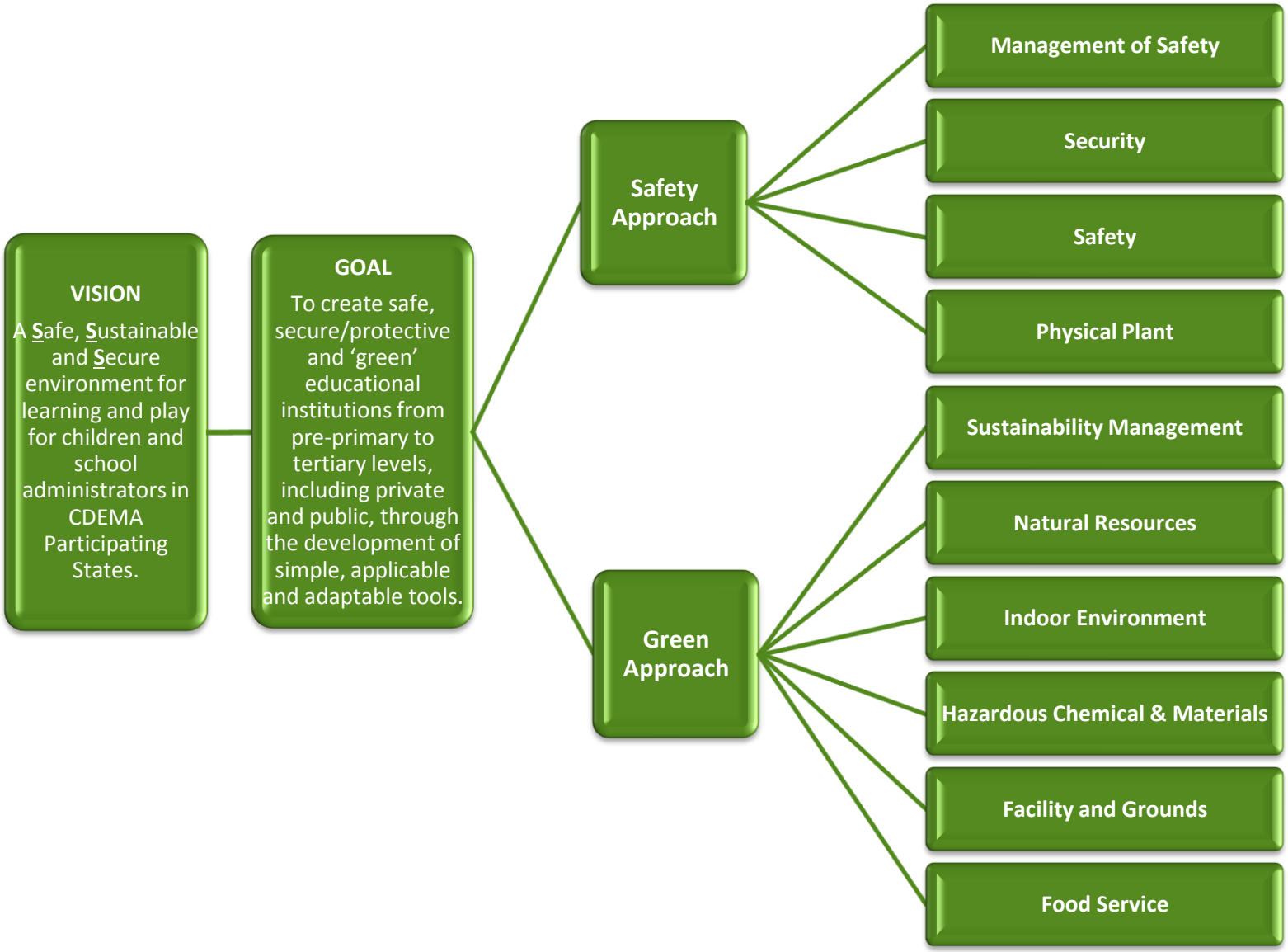


Figure 5: Policy Framework: Vision, Goal, Approach and Themes

1.2.2 3.3.1 Safety

The themes that focus on Safety are further elaborated in **Table 1** below

Table 1: Safety Objectives, Strategies and Performance Indicators

Safety Themes	Objectives	Strategies	Key Performance Indicators
Management of Safety	1. To guide safety planning, accident and incident investigation, reporting and internal, on-going monitoring and external auditing.	1.1. Delegate responsibility over safety matters at the appropriate staff levels. 1.2. Monitor and review measures necessary to reach satisfactory safety standards 1.3. Train staff in all relevant aspects of safety management at schools, including the attainment of competence in risk assessment. 1.4. Select and control of independent contractors[6] shall be guided by the policy, which shall include a minimum complement of safety training and adherence to established codes. 1.5. Personnel should be certified in first-aid and CPR to support pupils' medical needs. 1.6. Mechanisms for ongoing recording and reporting of accidents to staff, pupils and visitors shall be established and adhered to. 1.7. Training of personnel in procedures to facilitate fire safety, including prevention, suppression, response and ongoing evaluation is provided. 1.8. Presence and testing of all emergency procedures and the maintenance of up-to-date contact lists to be used during times of emergency.	• Safety committee established. • Teachers and staff certified in basic first aid, fire safety and suppression. • Safety conditions assessed. • Disaster/emergency plan prepared.
Security	2. To promote a safe environment which ensures health and well-being, whilst	2.1. A holistic framework that addresses the security of all individuals within school premises shall be established, monitored and evaluated on an ongoing basis. 2.2. Practices that ensure the safety of students, staff and parents	• System to account for students, staff, visitors and vehicles entering and leaving property.

[6] Independent contractors are any that may impact the welfare and safety students. Some examples include: taxi/bus drivers, food vendors, contractors/builders and security firms.

Safety Themes	Objectives	Strategies	Key Performance Indicators
	developing the whole person and improving students' performance.	during off-site visits shall consistently be applied. 2.3. Vehicles, visitors, and deliveries entering and leaving school premises will be accounted for throughout the day.	
Safety	3. To adopt a culture of continuous, transformational improvement through a dynamic and evolving process which leads to behavioural changes in respect to safety.	3.1. Robust arrangements must be in place to consult with teachers and staff on all matters related to safety at schools. 3.2. Measures shall ensure the safety at the workplace for staff, pupils and visitors. 3.3. Preventive measures, counselling and medical services shall be provided to minimise the impact of violence on staff and students. 3.4. Manual handling/lifting shall be conducted in a manner that will minimise accidents and injury. 3.5. Food preparation and eating areas shall be clean, properly outfitted, organized and secured. 3.6. Gender-specific bathrooms with showers shall be available if school is used as an emergency shelter.	• System in place for reporting safety issues and for recording actions taken. • Measures taken to minimize injury and accidents. • Food preparation/kitchen areas are properly managed and maintained. • Male and female bathroom facilities that is safe and secure.
Physical Plant	4. To adopt measures that foster the identification, assessment and resolution of issues, through timely actions that lead to improved physical safety.	4.1. Maintenance, examination and test, of the plant and equipment shall be performed on an ongoing basis to ensure the welfare and safety of all individuals. 4.2. A comprehensive system for the management of potentially hazardous materials shall be established and implemented at the school level. 4.3. School grounds and facilities shall be designed/constructed/retrofitted to minimise the occurrence of slips and trips. 4.4. Schools should take into account special needs individuals in the design/construction/retrofitting of grounds and facilities.	• Regular maintenance plan in place. • Efforts taken to properly manage hazardous materials.

1.2.3 3.3.2. Green

The themes, objectives, strategies and performance indicators related to the 'Green' portion of the Model Safe School Policy for CDEMA Participating States are outlined in **Table 2** below.

Table 2: Green School Objectives, Strategies and Performance Indicators

Green Themes	Objectives	Strategies	Key Performance Indicators
Sustainability Management	1. To reduce overall environmental footprint through various green initiatives	1.1. Schools shall formulate a plan for 'greening' the institution. 1.2. Responsibility over green initiatives shall be designated to a member of staff. 1.3. Arrangements shall be put in place to monitor and review measures to evaluate effectiveness/impact. 1.4. Effort shall be made to incorporate sustainability and environmental stewardship into the curriculum. 1.5. Staff shall be trained in the efficient use and operation of electronic equipment/devices/machinery. 1.6. Audits (water, energy and waste) shall be carried out to understand where changes can be made. 1.7. Schools shall develop a plan for awarding/recognizing staff and students who take leadership role in the Policy.	• Greening plan formulated and champion on staff designated. • Audits performed to establish a baseline. • Programme for rewarding/recognizing outstanding contributions to the greening efforts established. • Curriculum includes environmental sustainability topics.
Natural Resources	2. To promote efforts aimed at reducing the use of natural resources.	2.1. Procedures and guidelines shall be put in place aimed at reducing the use of natural resources. 2.2. Effort shall be made to ensure that all energy systems, lighting, air conditioning and the like are operating efficient. 2.3. Effort shall be made to properly maintain all systems, equipment and devices. 2.4. Any retrofitting/upgrade shall consider the use of devices and technology that reduces impact on the environment.	• Energy and water conservation plans developed. • Energy systems that is well maintained and functioning efficiently. Water systems that are checked regularly to reduce wastage.
Indoor Environment	3. To optimize indoor air quality as it improves teaching	3.1. Measures shall be taken to properly store, label and contain, secure and dispose of all hazardous materials. 3.2. Procedures and guidelines shall be put in place to handle spills and	• Leakage and mould detection procedures in place.

Green Themes	Objectives	Strategies	Key Performance Indicators
	and learning.	releases of hazardous materials. 3.3. Schools shall routinely observe for signs of water damage, leaks and mould. 3.4. Robust arrangements must be in place to remediate mould. 3.5. Schools shall monitor health-related complaints to ensure that mould or other indoor air quality parameter is not involved.	• Spill clean-up guidelines developed.
Hazardous Chemicals and Materials	4. To adopt measures that reduces or eliminates the use of hazardous chemicals and materials as far as possible.	4.1. All hazardous materials and chemicals shall be inventoried. 4.2. A comprehensive system for the management of potentially hazardous materials shall be established and implemented at the school level. 4.3. Schools shall procure safer alternatives to hazardous materials and chemicals as far as possible.	• Hazardous materials and chemicals inventoried and safety data sheets filed. • Efforts made to procure safe alternatives.
Facility and Grounds	5. To ensure that buildings and grounds are properly maintained.	5.1. Schools shall put in place procedures for the proper disposal and waste. 5.2. Schools shall ensure that all possible areas where mosquitoes can potentially breed are eliminated. 5.3. Proper management plans for landscaping and grounds including overhanging trees shall be implemented. 5.4. Schools shall ensure that preventative measures are taken to prevent pests.	• Plan formulated for the proper collection and disposal of waste. • Grounds inspected routinely for standing water and evidence o pests.
Food Service	6. To ensure that on-campus food services are sustainable	6.1. Procedure shall be put in place for the proper disposal/composting of all food waste. 6.2. Schools shall ensure that cafeterias/food vendors minimize the use of disposable materials. 6.3. Schools shall ensure that containers are recyclable, reusable or contain recycled content are utilized. 6.4. Schools shall ensure that refillable containers are utilized as far as possible and the use of single-use packages be minimized.	• Food waste properly disposed of off-site or composted on-site. • Plan developed to reduce the use of disposable items. • Local food procedures for food service.

4. FINANCING OPTIONS

Oftentimes operations and maintenance of educational facilities consumes a large portion of national budgets. Financing educational facilities originates from monies earmarked for Ministries of Education, in the case of public and government-assisted educational institutions. Inadequate financial and human resources undermine the effective and continuing operations of schools. It is recommended that a portion of monies allocated to the maintenance and operations of schools and the procurement of supplies, be used to support the initiatives outline herein. Financing options should include:

- **National Budget**: A fraction of the annual allocations to the Ministry of Education should be allotted for initiatives identified in Safe and Green Assessment Tools.
- **Donor Funds**: Other options include engaging NGOs, regional and Sub-regional organisations and donor partners to fund specific areas of interest in creating safe and green schools. A mechanism to ensure compliance with donor requirements and procedures shall be established.
- **Community Partnerships**: Provides residents with an opportunity to support schools in their communities.
- **Local/Private Sector Engagements:** Allows stakeholders to solicit the assistance of local companies to support the work of the Safe and School Policy.
- **Parent Teacher Associations**: Engaging parents and the community to offer support in achieving particular targets of the Policy.
- **Fees**: A small percentage of school fees can be earmarked for maintenance.

Private educational institutions can also consider increases in fees to accommodate the necessary changes needed to meet the safe and green standards outlined.

5. COMPLIANCE

5.1. Evaluation and Certification Process

An independent audit process, driven by inspectors derived from various Government departments and private contractors will assess compliance with safety and green standards. The certification process will evaluate the level of implementation of the standards and ultimately the Policy. Assessment tools in the form of checklists accompany this Policy and its standards. The checklists appear in the **CDEMA Model Safe School Programme Assessment Checklists**, **Table 1-4**.

A baseline evaluation is required to establish the degree to which schools are in compliance with the standards. Schools need to attain 80% on both the safe and green assessments to be considered in compliance. The assessments will highlight areas that need attention and to where retrofits, resources, efforts and upgrades should be directed as each section notes the Maximum Points Achievable and Points Achieved. The Safety and Green checklists are weighted and scored. There are several critical standards throughout the checklists which must be met in order for a school to be certified as Safe and/or Green. Critical standards are weighted more heavily. If any of those critical standards are not met the school cannot be certified. A total of 80% is needed for a school to be certified. A school cannot be certified even if it meets the 80% requirement and critical standard(s) is not met. Critical standards are indicated with an 'X' in the last column of the checklists. The type of facility (pre-school, primary, secondary and tertiary) is also indicated with an 'X'. Please refer to the **CDEMA Model Safe School Programme Assessment Checklists**, **Table 1-4** for the Assessment Tools.

To incentivise the programme and elicit competition between schools, a recognition programme can be developed by the Ministry of Education. Schools in compliance can be offered a plaque or similar for their effort. It should be kept in mind that compliance needs to be maintained. Re-assessments should be conducted every 3 years to ensure that schools remain in compliance with the Policy.

5.2. What happens if the school is in non-compliance with a series of standards?

Once a baseline is established and a school does not meet certification requirements, a prescriptive plan will be issued to assist the school in charting a path to certification. A re-inspection will then follow once the school acts on the areas shown to be deficient in the assessments. If all identified deficiencies are corrected, the path towards certification is complete. However, if the school requires additional interventions to complete their plans, further inspections may be required. The process is described in **Figures 6 and 7** below.

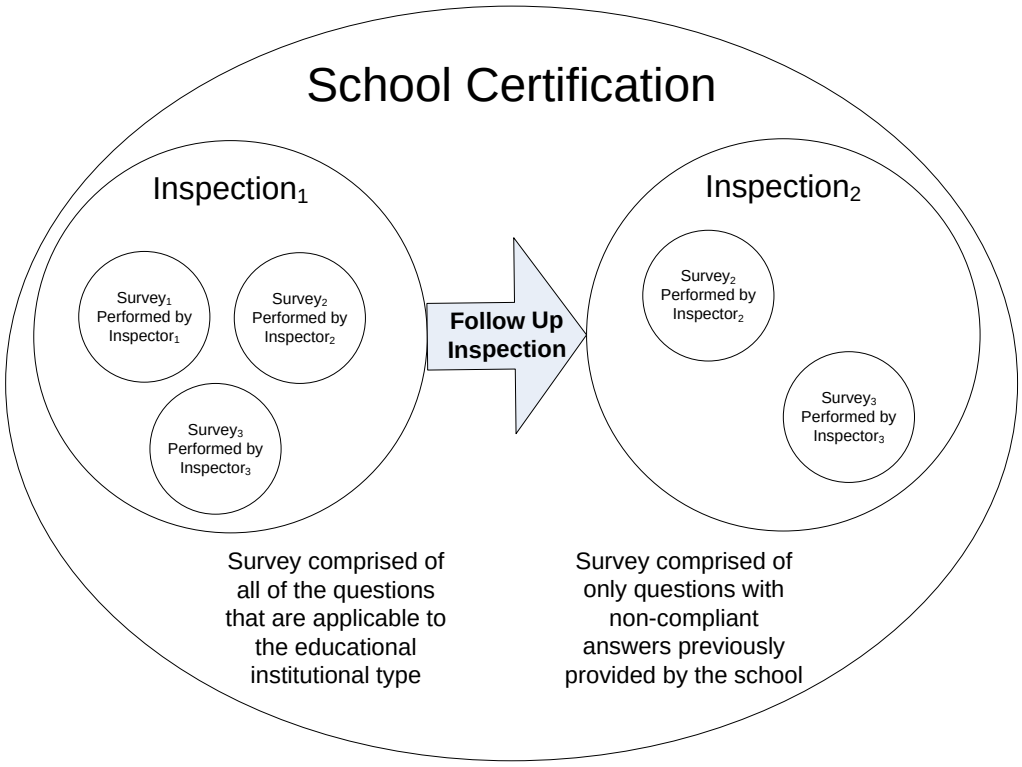


Figure 6: School Safety and Greening Certification.

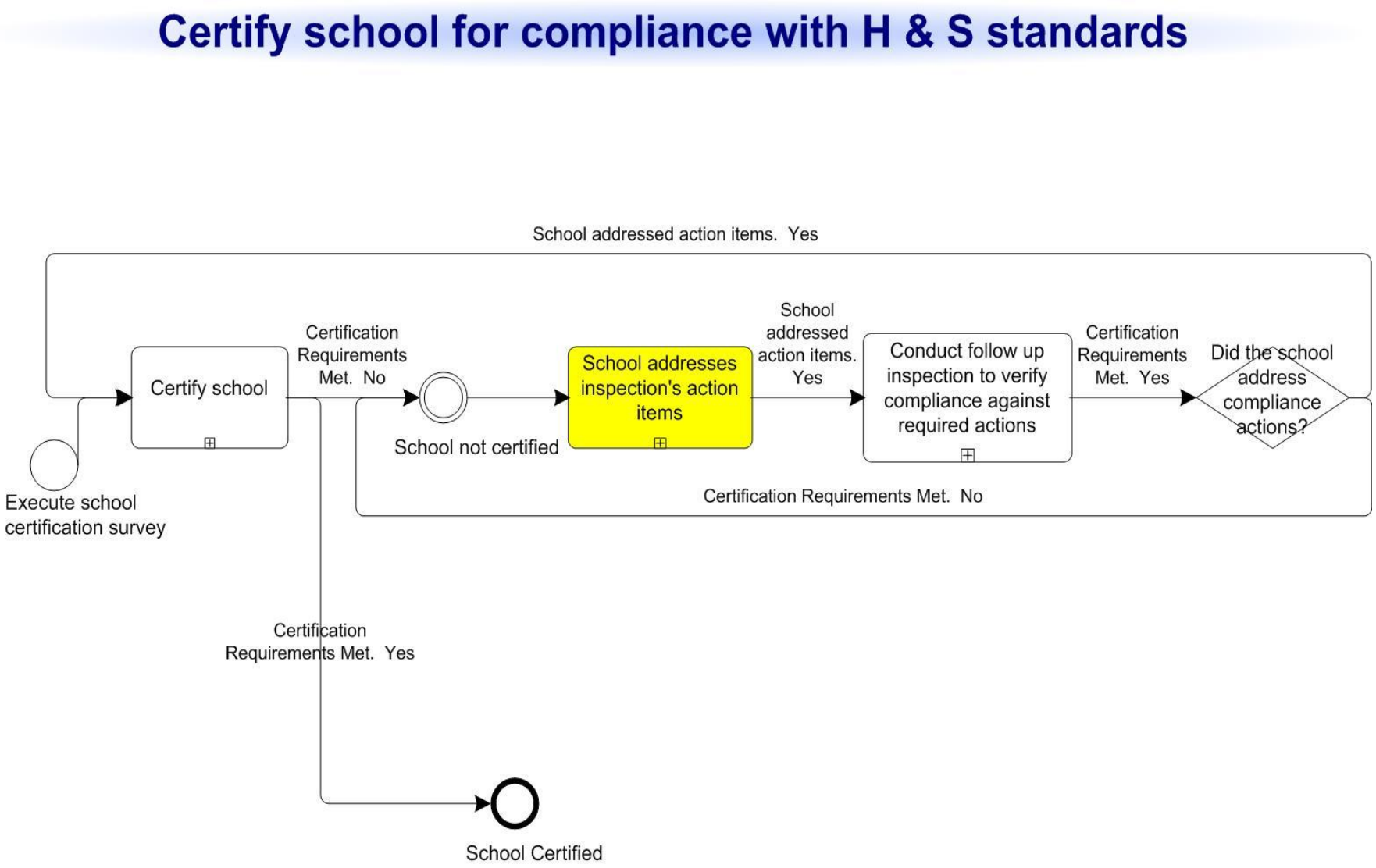


Figure 7: Process for certifying a school.

6. Sustainability

Key to achieving the goals of this Policy is support from Cabinet, Ministry of Education, other key ministries, school administrators, students, parents and communities. The Ministry of Education needs to fully endorse the Policy, require compliance, encourage and facilitate training opportunities for teachers and staff, ensure that inspections are carried out every three (3) years and offer other support where needed. Effort will be needed to promote the Policy and its benefits to get buy-in and support from students, parents and communities. The importance of creating safe school environments must be emphasized especially in light of the fact that in many nations, schools serve as emergency shelters.

This Policy will require finances to undertake the necessary upgrades to the facilities and grounds and to procure necessary supplies such as fire extinguishers and proper signage. Therefore, changes to allocations may be necessary. The Policy will also require individuals with a background in construction, maintenance and/or health and safety to perform the inspections. Building maintenance authorities or private contractors

APPENDIX 1

SAFETY STANDARDS

The school safety standards are divided into the following sections:

1. Disaster Planning
2. Emergency Planning
3. Safety Administration
4. Medical Emergencies
5. Physical Plant
6. Physical Safety
7. Protection of the Person
8. Hazardous Chemicals and Materials

The policy will be effectuated by the adherence to the standards described in Table 1 below. The operational standards are categorised by section.

Table 1: School Safety Standards

H & S Section	Standard
1. Disaster Planning	1.1. Schools must be guided by a Disaster Management/Contingency Plan, which addresses the multi-hazard operational environment. Plans must take into account natural and man-made hazards, which may impact the school and should be founded in the Comprehensive Disaster Management framework and policy in place in CDEMA Participating States. School Disaster Management/Contingency Plandshould be reviewed and shared with staff at least once a year.
	1.2. All school staff should be involved in the overall response, pre-, during and post-hazard event with clear roles and responsibilities assigned to facilitate the response.
	1.3. Protocols referring to the relocation/transport of persons to designated "Safe Areas" in the community in the event of a disaster should be in place. Arrangements must also take into account persons with any special needs. Designated areas should be secured and protocols must also address their management before and during emergencies.
	1.4. Schools should participate in national simulation exercises, conduct and test their readiness and response on a regular basis. Evaluations derived from participation should form part of the basis for continuous improvement and effective communication with the staff. School drills and simulations should involve not only staff and students but whenever possible parents[7] as well.
	1.5. Resource allocation to address the occurrence of a hazard event should

H & S Section	Standard
	be guided and founded on previously observed costs and should guide future actions associated with the implementation of safety matters at schools.
	1.6. School personnel should be trained to address various elements of preparedness and response. In particular, training in areas such as fire suppression, basic life support, crisis intervention stress management (CISM), and others should form part of the basis of annual and regular training programmes which will enhance and strengthen the schools' ability to effectuate the policy and its standards.
	1.7. Schools should maintain updated contact lists of parents or alternate adults who may pick students up in the event of a hazard event or disaster. Parents should be aware of alternate locations where students may be retrieved in the event of the need to relocate to other sites.
2. Emergency Planning	2.1 School Emergency Plans should be based on risk assessments performed to address a multi-hazard environment and in accordance with the labour regulations. Guidance published by relevant authorities should be employed and tailored to individual schools' needs. Plans must be reviewed by the entire staff on a regular basis and updated accordingly. School Emergency plans should be submitted to all relevant authorities.
	2.2 Schools should have written guidelines and procedures for managing crises dealing with, natural disasters, medical emergencies, man-made hazard events, fires and student and staff deaths or other matters where crisis intervention may be required.
	2.3 Schools should make arrangements to address incidents where multiple individuals have been injured or during the occurrence of a mass casualty. Arrangements must include protocols and mechanisms for the provision of triage, if relevant, the safe relocation to medical centres whether within the community, nationally or regionally.
	2.4 Emergency equipment must be regularly inventoried, maintained and tested and should appropriately address the needs of individuals found at an educational facility. There should be sufficient numbers of fire extinguishers, first aid kits, smoke detectors and other relevant equipment to address various types of emergencies which may arise. Inventories of emergency equipment should be regularly updated.
	2.5 Up-to-date student health records should be maintained with individuals assigned to that role. The rights of privacy over sensitive medical information should be respected at all times, whilst balancing the need to address any medical emergency at a school.
	2.6 Students should be taught how to behave and respond in the event of an emergency. A culture of appropriate emergency preparedness and response should always be fostered and supported.
	2.7 Staff must be knowledgeable and competent in all measures to be taken when evacuating and returning to a building.
	2.8 Clear and accurate guidance regarding available evacuation routes and emergency exits out of buildings should be posted in all rooms by doorways at schools.

H & S Section	Standard
	2.9 Safe locations for each type of emergency should be determined. Designated rooms which may be used for shelter in the event of an emergency should be available complemented with first aid supplies and other required resources.
3. Safety Administration	3.1 A Safety Officer should be appointed/designated at all schools and educational facilities. Time and resources should be allocated in order to properly discharge those duties and perform tasks in accordance with the Labour Code.
	3.2 School, in consultation with the staff should prepare a written statement of the general policy with respect to the safety and health of the employees.
	3.3 A copy of the Safety and health policy should be conspicuously posted along the school in accordance with the Labour Code.
	3.4 Notices to the Labour Department stating the types of hazardous chemicals, physical agents, and the hazardous biological agents present at your institution should be filed in accordance with the Labour Code.
	3.5 Schools should assess and document the risks to the safety and health of their personnel, students and persons whilst frequenting their facilities, in accordance with the Labour Code.
	3.6 Schools should identify any particular vulnerable group(s) exposed to the risks which may have been assessed and special arrangements should be made to address their evacuation or medical needs during an emergency or disaster.
	3.7 Schools must properly document and record within registers any actions taken to address safety matters and such must be maintained in accordance with the Labour Code.
	3.8 Schools should have a functioning joint workplace safety and health committee or a representative elected from the employees in accordance with the Labour Code.
	3.9 Schools must make reasonable provisions to educate their employees of their obligations in respect to the performance of their duties related to safety management, which include: not willfully interfering with, misusing or damaging by any means, appliance, convenience or other thing; not willfully and without reasonable cause doing anything likely to endanger himself or herself or others.
	3.10 Schools must make reasonable provisions to monitor staff and students and prevent their entry, or to remain at on the premises when under the influence of alcohol, addictive drugs or any other substance which may adversely affect the safety of any individual.
	3.11 Suitable and rapid means of obtaining first aid help should always be available to schools, whether on or off-site.
4. Medical Emergencies	4.1. Schools should establish and maintain, insofar as practical, programmes for the prevention and detection of allergens, such as mould and dust at schools.
	4.2. Schools should have a dedicated nurse and/or health care provider on-staff, insofar as practical. Immediate access to a nurse or health care

H & S Section	Standard
	provider in case of emergencies should otherwise be available.
	4.3. Schools should make provisions for the rapid transportation of injured staff or students to a hospital or health care facility in the event of medical emergencies.
	4.4. Schools should post emergency numbers at visible locations next to their phones.
	4.5. Insofar as practical, schools should ensure that on, or off-campus food vendors possess the necessary licensing requirements and adhere to all relevant laws and regulations required for handling and serving food.
	4.6. On-campus food facilities must be organized, sufficiently equipped and clean. The area should be properly ventilated and fire suppression equipment must be located in proximity.
5. Physical Plant	5.1 The physical plants of schools must be evaluated for the presence of various hazards[8] and insofar as practical address those through design changes, retrofitting or the construction of buildings that are fit for purpose amongst other approaches. Schools should be assessed in particular for structural integrity and soundness to minimize exposure of persons to risks.
	5.2 Schools should be earthquake safe[9].
	5.3 Schools should be regularly assessed and inspected to ascertain the level of vulnerability to various hazards.
	5.4 Schools must have improvement plans that include regular maintenance of all buildings within the prescribed guidelines set by the relevant ministries such as health, public works and education
	5.5 *Schools to ensure that adequate fire appliances such as extinguishers are in place, assembly points and escape routes clearly marked and defined*
	5.6 Older facilities must be inspected for the presence of asbestos or lead paints and if found, sound principles of containment and removal must be exercised in order to eliminate the possibility of accidental release of any into the environment.
6 Physical safety	6.1 On-campus security arrangements, whether contracted or public must be actively involved in the management of emergencies and disasters. Clear reporting lines, roles and responsibilities in the event of a security issue, emergency or disaster must be in place and articulated in school Disaster Management/Contingency Plan.
	6.2 All visitors to a school must be required to sign in, or issued passes while on school grounds and screened, if relevant.
	6.3 Strategies to mitigate the escalation of a violent event should be explored and where relevant, internal and external resources should be allocated to reduce the risk of the occurrence of violence at schools. The role of on-campus security in the event of an act of violence must be clearly defined and protocols for the management of situations should be established.
	6.4 Schools must devise a method of accounting for students that leave on

[8] Schools need to be assessed under the programme for the presence or vulnerability to hazards.
[9] The protocol for becoming an earthquake safe school is available to guide administrators on how to comply.

H & S Section	Standard
	school visits and address complications that occur off-site during a visit. The number of responsible adults to students (ratio) should be adequate to ensure the safety of pupils whilst off-campus.
	6.5 Schools should devise a system of accounting for the number of cars on the school grounds and ascertain the purpose of the vehicles that enter and leave the premises. Control areas where cars may enter or leave the school premises should be in place and movement should occur through clearly labelled routes.
	6.6 Schools may develop adequate means to monitor staff and students who may be under the influence of alcohol, addictive drugs or any other substance which may adversely affect the safety of other staff members or students or other persons found within the premises[10]. Wherever possible internal and external resources should be allocated to enhance the capacity to monitor and evaluate use and impact of any substance which may adversely impact safety.
	6.7 Schools should monitor for bullying and other aggressive behaviour and encourage students to report such conduct to teachers. Aggressive tendencies should be reported to parents/guardians.
	6.8 Schools should have bathroom facilities and showers that are gender-specific and that can be secured when facility is used as an emergency shelter.
	6.9 On-campus security arrangements, whether contracted or public must be actively involved in the management of emergencies and disasters. Clear reporting lines, roles and responsibilities in the event of a security issue, emergency or disaster must be in place and articulated in school Disaster Management/Contingency Plan.
7 Protection of the Person	7.1 Where individuals may be exposed to potentially hazardous chemicals or materials, heat or steam, schools must make provisions for the use of protective gear when possible contact may ensue to minimise the likelihood of injury to eyes or other parts of the body.
	7.2 Schools must require that students and staff use suitable protective equipment whenever exposure to wet conditions, or to any injurious or offensive substances may occur prior to the performance of the task. Protective clothing and devices used must be of an approved standard. Adequate instructions in the use of the protective clothing or devices needs to always be provided if individuals or groups must enter an area where they are likely to be exposed to the risk of head, eye, ear, hand or foot injury, injury from air contaminant or any other bodily injury. Arrangements must be made for anyone to report the absence of, or deficiency in, any equipment or protective device or clothing, of which he or she is aware and which may endanger himself or herself or another employee or person.

[10] This may be implemented through the establishment of a training programme for the identification of individuals who may be under the influence of substances, prior to monitoring of adverse behaviours which may arise.

H & S Section	Standard
	7.3 Schools must restrict entry into an area where there may be exposure to the risk of head, eye, ear, and hand or foot injury from air contaminants or any other bodily injury unless a member of staff or student is wearing the protective clothing or device provided to protect them.
	7.4 Schools must conspicuously display notices in areas where protective clothing or devices are required to be worn.
	7.5 Where a member of staff or a student may be required manually to lift, carry or move anything above a specified maximum weight, schools must, as far as practicable, make arrangements to protect said person from injury.
	7.6 Schools must, in so far as practical and in accordance to the Labour Code, take into account the needs of a female employee or student who is pregnant and adapt the working conditions to ensure that she is not involved in the use of, or exposed to, chemicals, substances or anything dangerous to the health of the unborn child and up to six months after the birth of a child.
	7.7 Schools must ensure the delivery of instruction required for the employees and any young person to appropriately use potentially hazardous machinery. Safety precautions required for the use of potentially hazardous machinery must be provided. Adequate supervision by a person who has special knowledge and experience in the operation of a hazardous machine is required.
	7.8 Schools must take adequate steps to prevent hearing impairment caused by noise, and diseases caused by vibration, from occurring to persons in the vicinity and that any necessary protective equipment to address potentially hazardous levels of noise and vibration are worn or used at all appropriate times.
	7.9 Schools must ensure that periodic medical evaluations of those employees exposed to the risk of injury to their hearing or of contracting a disease caused by vibration be undertaken. Record of medical evaluations of those employees exposed to the risk of injury to their hearing or of contracting a disease caused by vibration, including audiometric examinations along with the periodic evaluation of the work environment must be maintained in accordance with the Labour Code.
8 Hazardous Chemicals & Materials	8.1 Schools must make appropriate arrangements to safely store any hazardous chemicals.
	8.2 Schools which handle potentially hazardous chemicals or where dust, iron filings or other possible hazardous materials may be generated during an activity, must arrange for the provision, distribution or sale of safety glasses/goggles, gloves or other skin protection, lab coats, aprons or other protective equipment prior to the use of a potentially hazardous chemical at its facility. The school must have accessible eye wash stations and deluge showers at the labs.
	8.3 Schools must have a mechanism for reporting the presence of a possible hazardous material or contaminant and relating the information to authorities in accordance with any relevant guidance on the matter.

H & S Section	Standard
	Mechanisms for following up on the incident must be in place.
	8.4 Schools must take all necessary precautions to prevent eating or the storage of food at facilities where dangerous chemicals may be used.
	8.5 Schools must make arrangements to manage any process involving the use of, or exposure to, products containing benzene or other aromatic hydrocarbons. C_6H_6 itself or any product the benzene content of which exceeds one percent by volume and insofar as practicable should find harmless or less harmful substitutes which may be used if they are available. An Enclosed System or where an enclosed system is not practicable, within equipment with effective means to ensure the removal of benzene fumes to the extent necessary for the protection of the health of staff and students must be in place.
	8.6 Appropriate danger signage must clearly and visibly be posted on any container holding benzene or other potentially hazardous chemicals. All hazardous chemicals present on the facility grounds are labelled in a way easily understandable to the employees and students. Schools must ensure that when hazardous chemicals are transferred into other containers or equipment, the contents are indicated in a manner which will make known to employees, their identity, any hazards associated with their use, and any safety precautions to be observed.
	8.7 Appropriate instructions about safeguarding health and preventing accidents, as well as about action to be taken if there is any evidence of benzene or other types of poisoning should be provided.
	8.8 Schools must obtain or prepare up-to-date chemical safety data sheets for all hazardous chemicals present on the facility grounds and ensure that the information available in chemical safety data sheets is available in English and any other language indicated by the situation at the school. Up-to-date inventory of all hazardous chemicals must be prepared.
	8.9 Information must be provided on the handling and disposal of hazardous chemicals which are no longer required and containers which have been emptied but which may contain residues of hazardous chemicals, so that the risk to safety and health and to the environment is eliminated or minimized. The school must also ensure that a hazardous chemical is not used, handled or stored unless the prescribed requirements concerning identification, chemical safety data sheets and worker instruction and training of the use of the chemicals are met. Hazardous chemicals should not be used, handled or stored unless the prescribed requirements concerning identification, chemical safety data sheets and worker instruction and training of the use of the chemicals are met. Employees must have access to information of any unexpired chemical safety data sheet regarding hazardous chemicals at the workplace.
	8.10 Schools must furnish a copy of the most recent version of the inventory and of every unexpired chemical safety data sheet to a representative of the safety committee or the safety employee representative in accordance to the Labour Code.

APPENDIX 2

GREEN STANDARDS

The green standards are divided into the following sections:

1. Management Strategies
2. Energy Use
3. Water Use
4. Solid Waste Generation
5. Indoor Air Quality
6. Hazardous Chemicals and Materials
7. Mercury Use
8. Mould
9. Pest Management
10. Maintenance
11. Food Service

Table 2: Green Sections and Standards

Green Section	Standard
1. Management Strategies	1.1. Schools must be guided by sustainable principles and be willing to make changes in operation and procurement in an effort to reduce their contributions to environmental degradation and climate change.
	1.2. All staff and students should be cognizant of the policy and involved in efforts to green the institution. A champion from staff should be appointed to administer the components of the programme.
	1.3. To ensure that the programme moves beyond the educational facility, elements should be incorporated into the curriculum. Staff and students who take leadership roles should be recognized for their efforts.
	1.4. Audits should be conducted for energy, water and solid waste to determine a baseline and to highlight the changes made by various initiatives.
	1.5. Resource allocation to address sustainability issues should be guided and founded on previously observed costs and should guide future actions associated with the implementation of greening/sustainable activities at schools.
2. Energy Use	2.1 School should develop energy conservation plan to help reduce energy use. The plans should also include measures to guide procurement.
	2.2 Future upgrades that involve energy should give consideration to efficient equipment, fixtures, bulbs and devices that result in reduced energy consumption.
	2.3 Thought should be given to installing renewable energy system should the roof/grounds be able to accommodate such. Thought should also be given to installing solar hot water should the facility have a need.

Green Section	Standard
3. Water Use	3.1 Schools should develop water conservation plan to help reduce water use and wastage. The plan should include measures to guide procurement for faucet, toilets, etc.
	3.2 Future upgrades that involve aspects of the plumbing system should give consideration to water-efficient devices, equipment and technology. Consideration should be given to a rainwater-capture system that could be used for non-potable uses such as toilet flushing.
4 Solid Waste Generation[11]	4.1 Schools should develop a solid waste plan aimed at reducing the amount of waste generated. It should cover procurement practices as it relates to waste generation.
5 Indoor Air Quality	5.1. Schools must take appropriate precautions to safeguard the indoor environment of classrooms and other regularly occupied spaces. Arrangements to safely store any hazardous chemicals.
	5.2. Schools should undertaken regular inspections of buildings for water damage, leaks and staining to determine if mould is present. If present, removal and repair should be undertaken immediately.
	5.3. Work that may expose students and teachers to dust, vapors or chemicals should be conducted outside of regular work/school or during vacation. Measures to avoid dust, mist and harmful vapors must be taken for work during school/work hours that cannot be avoided.
	5.4. Establish a policy that prohibits smoking in and around educational facilities.[12]
6 Hazardous Chemicals and Materials	6.1 Schools must make appropriate arrangements to safely store, label, handle and dispose of all hazardous chemicals. All hazardous chemicals and materials must be used as intended and in the manner prescribed.
	6.2 Schools must have a mechanism for containing and cleaning spills in a timely manner to limit spread and exposure. Mechanisms for following up on the incident must be in place.
	6.3 Signage must be present to indicate where hazardous chemicals are stored.
	6.4 Eliminate or closely control materials, adhesives, coatings, furnishings that contain Persistent Bio accumulative and Toxic chemicals (PBTs), Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), Aromatic Hydrocarbons, Halogenated Fire Retardants (HFR), heavy metals, phthalates, perfluorochemicals (PFCs) and other chemicals that can pose harm to staff, students and visitors.
	6.5 Schools must obtain or prepare up-to-date chemical safety data sheets and an inventory for all hazardous chemicals and materials present on the facility grounds.
	6.6 Older facilities must be inspected for the presence of asbestos or lead

[11]The effectiveness of this theme greatly depends on a national recycling programme.

[12]A government regulation may need to be enacted that prohibits smoking in public facilities. If a smoking area is designated, make sure it is at least 50 feet from the facility to reduce the impact of smoke staff and students and to prevent interior surfaces from absorbing the smoke. Ensure that the smoking area is downwind and away from main entrances/exits, windows, air conditioning units and air intakes.

Green Section	Standard
	paints and if found, sound principles of containment and removal must be exercised in order to eliminate the possibility of accidental release of any into the environment.
7 Mercury Use	7.1 Schools should document and make plans to phase out all mercury containing items/devices. [13]
8 Mould	8.1 Schools should establish and maintain, insofar as practical, programmes for the prevention and detection of allergens, such as mould.
	8.2 If detected, measures to remove and repair source of moisture should be immediate.
9 Pest Management	9.1 Schools should make it a priority to avoid pests by maintaining structure and grounds.
	9.2 Integrated Pest Management should be utilized to prevent and treat pests.[14]
	9.3 Schools should have a programme in place to ensure that all potential mosquitoes breeding sites are eliminated from the compound.
10 Maintenance	10.1 Schools should have a maintenance plan in place that routinely inspects and assesses buildings, electrical and plumbing systems and grounds. Issues should be addressed in an effort to conserve resources and avoid compounding of the problem.
11 Food Service	11.1 Issues should be addressed as soon as possible using sounds practices and keeping sustainability in mind.

[13] Mercury is hazardous and anything that contains it should be treated as hazardous. Incinerating or disposing of mercury-containing items in landfills is not recommended.

[14] Integrated Pest Management (IPM) is a concept of pest management that seeks to reduce the use of harmful chemicals, target specific pests, increase the use of safer alternatives and techniques and limit exposure of applicators, humans and other organisms to harmful substances. It is a proactive approach with the premise that if the food and habitat are not provided for the pests, they will look elsewhere. In addition, if chemicals have to be applied as a last resort, then the least hazardous chemical is applied in the lowest possible concentration and by trained personnel.

APPENDIX 3

GUIDELINES FOR SUSTAINABLE/GREEN CONSTRUCTION

In many cases, educational institutions form the largest segment of public investment. Given the importance of schools to the future of countries, the number of individuals they house on a daily basis and that in many countries, school are used as emergency shelters, it is imperative that the facilities be structurally sound, healthy and safe. Additionally, given that we are in the era of Climate Change, efforts should be made to reduce impact on the environment and contributions to Climate Change by making all new structures sustainable; this includes schools which use a significant amount of resources in their construction and operation.

Planning and building authorities, Ministries of Education, National Disaster Offices and Public Works Departments should all work together when a new school is to be constructed. Attention should be paid to such matters as location, orientation, utilities, energy and water conservation, renewable energy applications, site and area drainage, site and surrounding habitat, existing land uses on the potential site and surrounding areas and, transportation as these all impact on the sustainability of a planned building and its operations. Also of importance is the hazard context of the proposed site. What types of hazards will the building and its occupants be exposed to? Is the area prone to earthquakes, floods, volcanic eruptions, storm surge, etc? All of these issues must be looked at in the planning stage. It should be kept in mind that planning for various hazards and sustainability is more cost effective if done prior to construction!

Important areas to consider when planning a new educational institution include:

- Site Selection
- Building Design
    - Energy Use
    - Water Use
- Storm Water Design-Quality and Quantity
- Transportation

NOTE: Please consult your local building code or professional familiar with requirements during the planning stage.

1.2.4 Site Selection

Site selection and the location of a building on a site can bepivotal in making a planned building/facility more environmentally friendly. The location of a building on a site affects drainage, transportation, the ability to utilize natural ventilation and energy use. Location also affects the impacts that the building will have on the site and surrounding habitat. It is important to incorporate smart growth principles into the project development process, whether the project is a single building, campus or other type of development.

Analyze potential sites for topography, slope, soil properties, including ability to drain water effectively, stability, existing and potential erosion issues, whether the site is or can be used effectively as farmland, ecological significance, flora and fauna and other unique features. Avoid sites that have never been

developed; instead, choose a site that has been previously disturbed or developed. Also, keep in mind that the site should be easily accessible to workers, students, staff and visitors. It is also best to locate where infrastructure, utilities and other services are easily accessible, so as to reduce cost and disturbance related to site development.

From a disaster management perspective, it is also important that the site be evaluate for potential hazards such as landslides, volcanic eruptions, flooding, storm surge and coastal erosion. Situate building/facility within a site away from steep slopes, flood plains, areas prone to erosion, farmland, wetlands, mangroves, etc.

1.2.5 Site and Building Design

Building design impacts greatly on energy use. Orient your building and place fenestrations in such a way so as to avoid direct sunlight yet take advantage of prevailing winds in an effort to reduce the need for mechanical cooling/air conditioning. It should be kept in mind that given a warming world and the fact that teaching and learning are more efficient in a comfortable environment, it may be necessary to air condition classrooms in the future, so buildings ought to be designed with this in mind.

Roof design is also important from an environmental standpoint. If renewable energy is to be utilized or if there is a possibility that it can be utilized in the future, design the roof so that it faces the south to southwest to maximize exposure to the sun. This will ensure that solar panels and hot water heaters are working optimally.

In landscaping, use local plant varieties that are adapted to local conditions. If direct sunlight is unavoidable, use landscaping or other means to provide shade.

In addition to sustainability issues, safety concerns should be incorporated into new structures. Buildings should be engineered to withstand hurricanes and earthquakes if these are hazards that the building would be exposed to.

Energy Use

Reducing energy consumption is an important element in achieving sustainability or greening. New structures should be outfitted with energy efficient bulbs, fixtures, exit signs, equipment and devices. In many cases, schools often have large roof areas which are ideal for installing solar systems. Thought should be given to installing such and using same as a teaching tool.

Water Use

Reducing water consumption is another important element in sustainability/greening and educational institutions use large volumes of water. New structures offer great opportunities for incorporating water-saving devices and technology. In the region, it is generally the case that treated public water is used for toilet flushing. To reduce potable water use, consideration should be given to a rainwater-capture and reuse system which can use captured rainwater for non-potable uses such as toilet flushing. There is no reason why public water has to be used for this activity. New structures provide the perfect opportunity to incorporate such a system. In addition to the rainwater capture and reuse system, new

structures should be equipped with dual-flush toilets and motion activated or other water-saving faucets to further reduce use.

1.2.6 Storm Water Design: Quantity

Storm water is a term that refers to the runoff resulting from a rain event. In a forested or vegetated area, rainfall is intercepted by trees, shrubs and ground cover which reduces its velocity and allows it to percolate into the soil. Rainfall that does not infiltrate the soil flows along the surface towards a low point. Vegetation holds the soil together with roots and absorbs some of the moisture. When vegetation is removed and replaced with buildings, parking lots and other impervious surfaces, rain that would have once infiltrated the soil or slowly added to surface water features like rivers and streams, now becomes storm water runoff. Figure 1 depicts what happens to precipitation when vegetation is removed and replaced with impervious surfaces. As illustrated, 40% of water that falls in a vegetated area returns to the atmosphere through evapotranspiration from vegetation, 10% becomes surface runoff and 50% percolates into the soil. On the other hand, in an area that is 75 to 100% developed, 30% of the water returns to the atmosphere as evapotranspiration, 55% becomes surface runoff and only 15% infiltrates the soil. Development disrupts the hydrologic cycle.

Runoff collects debris, chemicals and other pollutants that may be on paved surfaces and transports them to rivers, stream and other water bodies where water quality is impaired. If there is no drainage

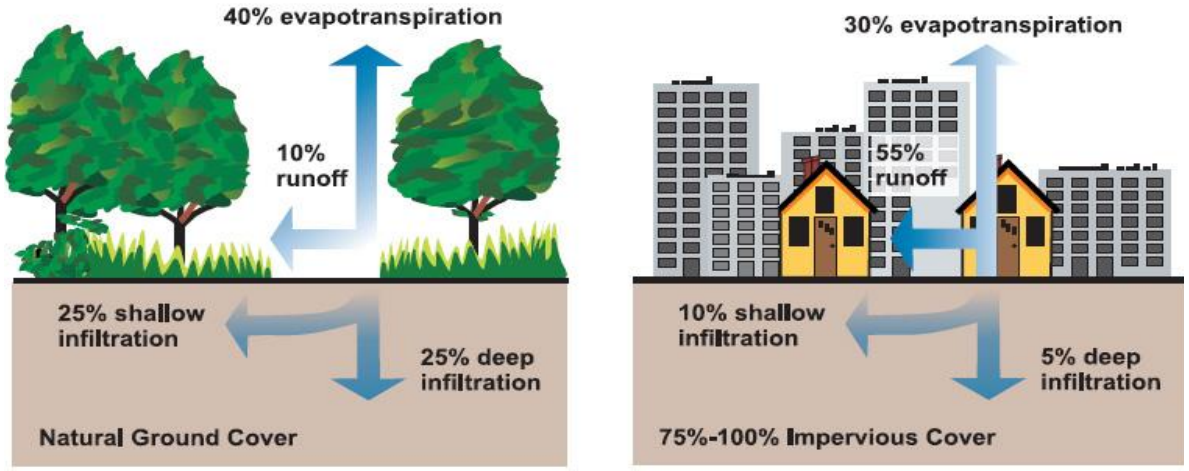


Figure 1: Precipitation on Vegetated versus Developed Site

http://upload.wikimedia.org/wikipedia/commons/4/46/Natural_%26_impervious_cover_diagrams_EPA.jpg

infrastructure to handle the increased storm water volume, the likelihood of localized flooding and onsite and off-site erosion increases as does the resultant infrastructure and property damage. Sustainable building and development techniques will help to reduce the impacts of development on the environment.

It is recommended that the development footprint and the area of disturbance be limited and that natural drainage patterns and existing vegetation are preserved as much as feasible.

Do not channel storm water runoff offsite to adjacent properties, roadways, waterways or similar. Retain as much of the runoff generated by impervious surfaces onsite as possible and direct to onsite rainwater collection system or drainage features such as swales, drainage ponds, dry wells and rain gardens. Also consider using alternative paving materials like grass and permeable pavers to reduce runoff generation and increase infiltration and recharge of groundwater. Several rainwater

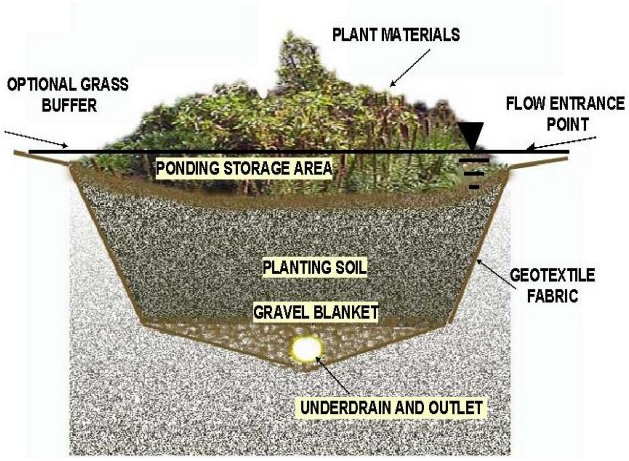


Figure 2: Cross Section of Retention Cell/Rain Garden

http://www.ence.umd.edu/~apdavis/bio-columns-

Figure 3: A Grassed Swale

http://www.pbcgov.com/coextension/horticulture/neighborhoods/tips/_images/swale.jpg

collection/storage/treatment features are illustrated below.

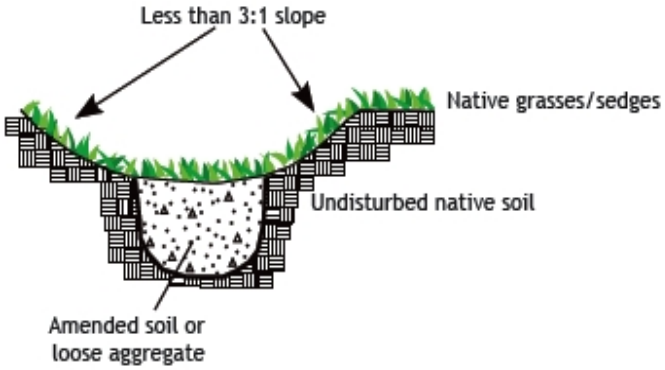


Figure 4 Cross-section of a Typical Infiltration Trench

Source:http://www.anr.state.vt.us/dec//waterq/stormwater/htm/sw_InfiltrationTrenches.htm

Figure 5: Installed Permeable Pavers

Source: http://www.enhancecompanies.com/idea_gallery/permeable_pavers.php

Figure 6: Grass Paver Application

Source: http://www.grassypavers.com/

Consider designing your structure with a flat/concrete roof and installing a green roof. Green roofs will absorb the rainwater that would normally become runoff and delay the peak flow, i.e., release excess water slowly and reduce flooding potential. Green roofs also provide habitat and absorb heat that would normally be absorbed by the roof thereby reducing cooling loads and heat in the structure. The graphic below provides a cross section of a green roof showing the vegetative species, media, drainage layer, insulation, membrane protection/root barrier on top of the roofing membrane. Not all green roofs are installed directly unto roofs, however. Modular green roof systems are assembled in portable, plastic containers off-site, transported and installed on-site. It should be noted that the plants used should be comprised of native, drought tolerant, hardy species. Plants should be carefully selected because varieties with extensive root system and that grow tall and sturdy will not be suitable for green roof applications. Also of importance is the media. The media has to be loose enough to allow water to pass through yet provide ample moisture for the plants. Soils with high clay content are not suitable for green roof applications. Additionally, the roof has to be able to support the additional weight of the green roof components and the rainfall that will be absorbed and held. As with any other roofing systems, periodic maintenance will be required. Watering may be required in ensuring proper plant establishment; installation during the wet season may eliminate this need. Weeding may be required to remove undesirable

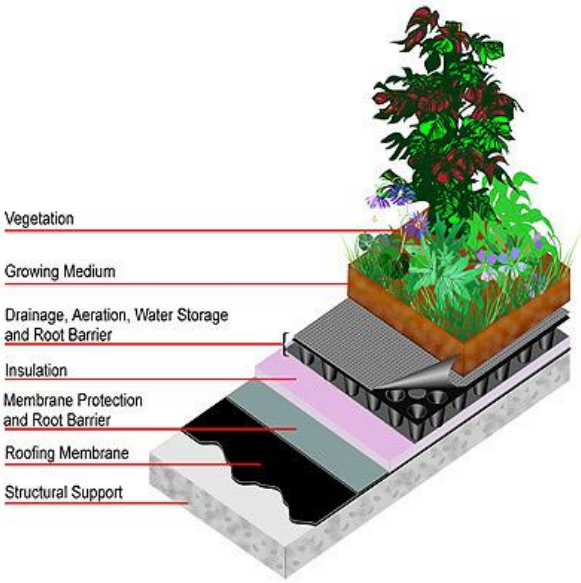


Figure7: Typical Green Roof

http://www.glwi.uwm.edu/research/genomics/

species. The typical components of a green roof are illustrated below.

Of concern is leak detection and repair. Modular systems offer flexibility that is not available with intensive and extensive systems which makes repairs less complicated. However, as noted above, green roofs extend the life of roofs by eliminating exposure to sunlight and damaging ultra violet rays.

Green roofs are suitable for the Caribbean region because they are simple systems that can be customized with local species to be as effective as those installed elsewhere. Green roofs installed in urban, flood prone areas in the Caribbean can significantly reduce storm water runoff and resultant flooding and property damage. Additionally, green roofs can be designed to be attractive, can provide recreational and educational opportunities and serve as places of respite.

1.2.7 Storm Water Design: Quality

Storm water that runs over impervious surfaces, like parking lots, walkways and roads collects debris, sediments, chemicals and other pollutants that may be on the surfaces and transports them off-site, often to rivers, streams and other water bodies where water quality is impaired. Additionally, storm water that runs over impervious surfaces and bare soil tends to do so at a higher velocity than it would in a vegetated area because there is not much to impede its progress. The increased velocity causes erosion. In order to reduce the amount of runoff generated on-site and to improve the storm water runoff quality, limit the amount of impervious surfaces, limit the area disturbed during site development, and capture, treat and recharge rainwater onsite. Another approach would be to capture and re-use rainwater generated by roofs.

Limit the development footprint and the area of disturbance and preserve natural drainage patterns. Ensure that exposed areas are protected in an effort to limit exposure of bare soil to rain and wind during construction. Install perimeter protection along natural flow areas to prevent sediment from travelling off-site during construction. Consider installing silt fencing, haybales or other erosion control methods. See illustrations below.

Do not channel storm water runoff offsite to adjacent properties, roadways, waterways or similar. Retain as much of the runoff generated by impervious surfaces onsite as possible and direct to onsite rainwater collection system or drainage features such as swales, drainage ponds, dry wells, rain gardens, etc. Eliminate or limit the use of chemicals including pesticides, fertilizers, as they will likely contaminate surface water flows originating on-site. A depiction of a dry well is included below.

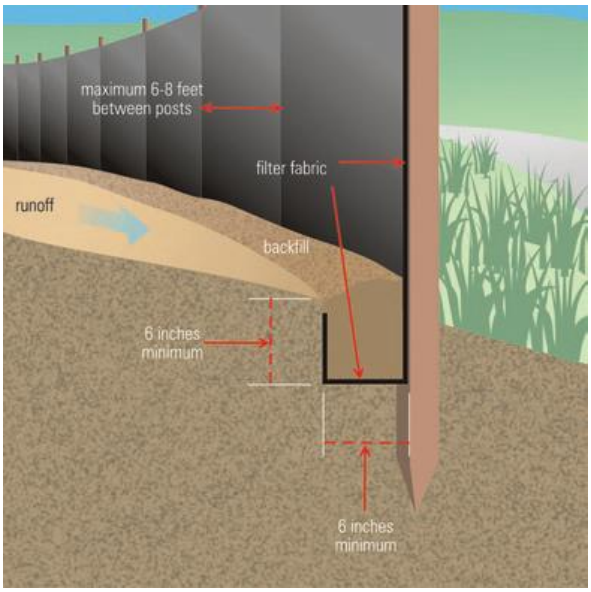


Figure 8: Typical Installed Silt Fence

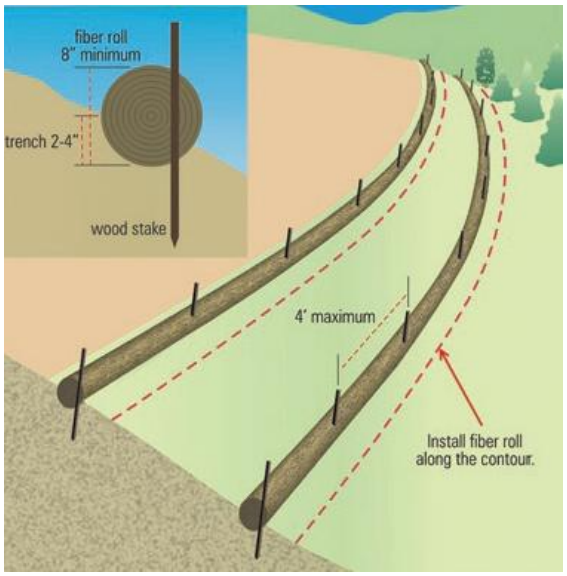


Figure 9: Typical Installed Fiber Rolls

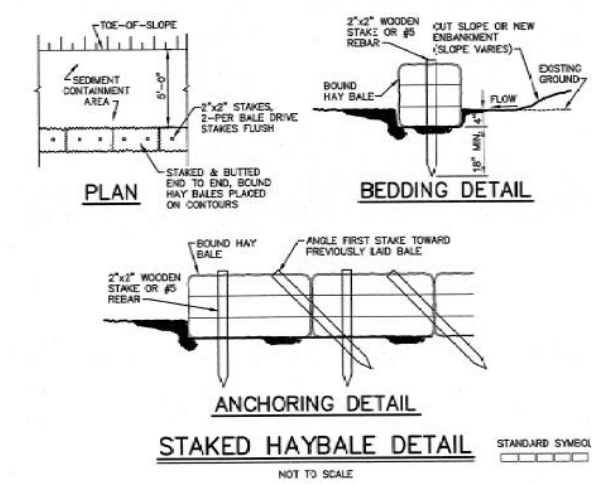


Figure 10 Staked Haybale Detail

Source: http://www.brookhaven.org/DesktopModules/Bring2mind/DMX/Download.aspx?TabId=134&DMXModule=1576&Command=Core_Download&EntryId=1177&PortalId=0

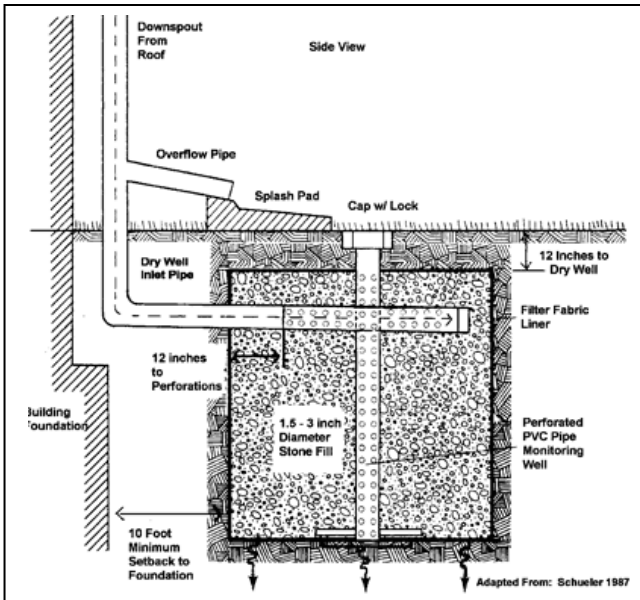


Figure 11: Illustration of an Installed Dry Well

Source: http://www.seagrant.sunysb.edu/cprocesses/pdfs/

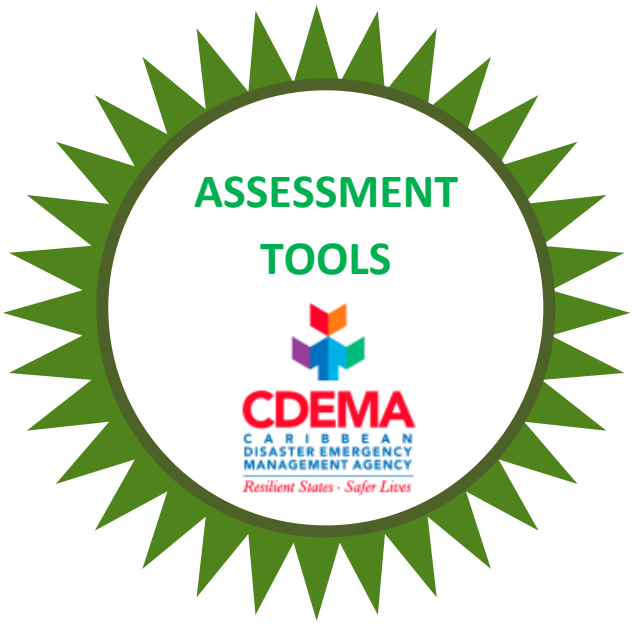
Transportation

Vehicles account for a major portion of all greenhouse gases and other pollutants. Ensure that your site is located in an area where infrastructures such as roadways are already available. Locate your facility in an area that is served by public transportation in an effort to reduce reliance on private modes of transport for staff, students and visitors. Design your site so that parking facilities are included if off-site/road side parking is not feasible/available.

SECTION TWO:

THE ASSESSMENT TOOLS

{Safety and Green Checklists}



CDEMA Model Safe School Programme for Caribbean Schools

THE ASSESSMENT TOOLS
(SAFETY & GREEN CHECKLISTS)

CONTENTS

1. Structure of the Assessment 1
1.1 Table 1 - Vital Information Required for the Effective Management of Safety at Schools 1
1.2 Table 2 - School Safety Compliance Assessment 1
1.3 Table 3 – Building Condition Assessment 3
1.4 Table 4 – Green Assessment 3
2. Critical Questions which must be addressed to certify a school 4
3. Certification Threshold 4
4. Improving Based on the Assessments 5

List of Tables

Table 1: Vital Information for the Management of Safety 6
Table 2: Questionnaire for the School Safety Compliance Standards 7
Table 3: Building Condition Assessment 25
Table 4 Green Assessment 32
Table 5 Improvement Plan 45

1. Structure of the Assessment

To assess the safety and greenness of educational institutions, a series of checklists in table format are utilized (See Tables 2, 3 and 4). The Safety Assessment Checklists are divided into three main sections as follows:

Table 1 – Vital Information for the Management of Safety

Table 2 – School Safety Compliance Assessment

Table 3 - Building Condition Assessment

Each checklist is used to collect information to aid in the safety evaluation of schools. These sections are further described below.

The Green portion of the assessment consists of one (1) checklist. See below for more detail.

1.1 Table 1 - Vital Information Required for the Effective Management of Safety at Schools

In order to effectively prepare and mitigate for various types of events or disasters, whether medical or hazard-related, vital information is required on the schools' demographics, construction, disaster and emergency training and disaster history. The Vital Information Checklist collects general information about the facility like location, year built, number of students, number and sex of teachers, number of non-teaching staff and if the facility is used as a emergency shelter and if it was ever impacted by a disaster event. Table 1 outlines vital information which should be updated by schools on an annual basis.

1.2 Table 2 - School Safety Compliance Assessment

Table 2 of the checklist is comprised of a series of questions built around international safety standards. The School Safety Compliance Assessment covers four (4) educational institution-types; early childhood (which includes day care centres and pre-schools), primary, secondary and tertiary institutions. Some questions will apply to every type of school while others will be applicable to a subset of school types (Figure). For example, high schools and colleges manage chemistry and biology labs and will have to address risks attached to possible hazardous chemicals and materials. These issues are not applicable to schools below that educational level. Each question has been categorised by safety theme, area and section a weight value was ascribed to most of the question to allow for scoring/certification.

The checklist/questionnaire included as Table 2 is divided into the following 8 sub-sections:

- Disaster Planning which looks at what plans, guidelines and procedures that is in place to guide response to disaster situations, and how and when they updated.
- Emergency Planning which covers supplies and equipment related to safety, health and contact information for students and the training of individuals in the areas of First Aid, fire suppression and CPR.
- Health and Safety Admin which looks at those responsible for administering health and safety issues, risk assessments and complying with local labour regulations.

- Medical Emergencies covers whether or not a health care provider is located on the school compound or is accessible in case of an emergency, food preparation on-site, the mechanisms for reporting potential issues and having easy access to emergency contact information.
- Physical Plant deals with the structural integrity of and any hazards that may be associated with school buildings
- Physical Safety covers on-site security issues and procedures.
- Protection of the person pertains particularly to secondary and tertiary level institutions and covers safety gear and equipment available.
- Hazardous chemicals and materials also pertain to secondary and tertiary level institutions where potentially hazardous chemicals may be used in laboratories, etc.

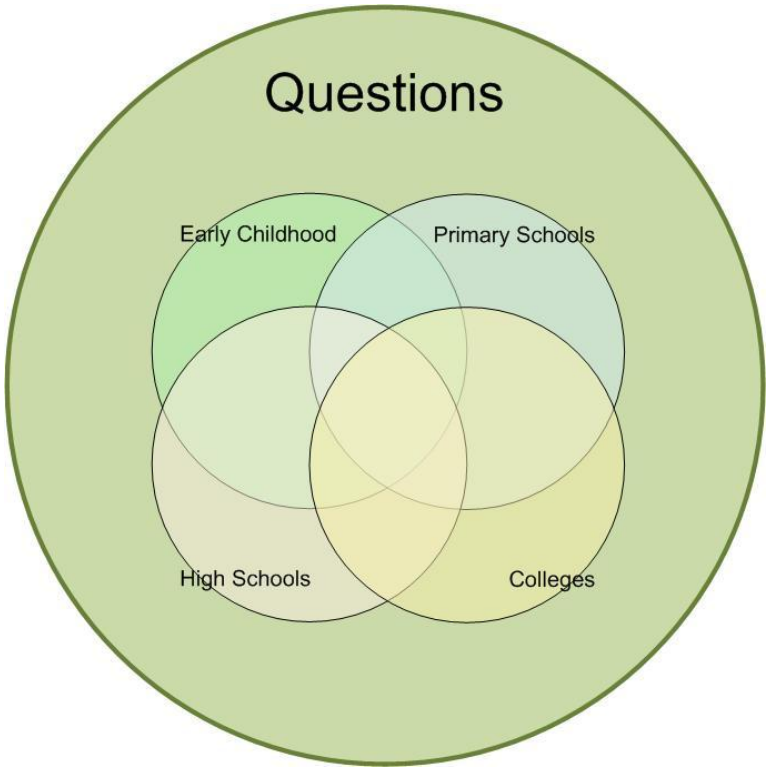


Figure 1: Sets and subsets of questions comprising a questionnaire per educational institution type.

There are a total of 557 points available with the School Safety Compliance Checklist; only secondary or tertiary institutions will be able to achieve that many points. Early Childhood schools will be able to achieve a maximum of 387 points and Primary schools will achieve 421 points. Questions that are not applicable should not be included in the Maximum Points Achievable tally as the results will be skewed and not reflective of the situation. Regardless of the points available, a threshold of 80% is needed for a facility to be considered safe.

1.3 Table 3 – Building Condition Assessment

Table 3 seeks to collect information on the condition of the school building(s) and grounds that could potentially harm staff and students and which may make the school more vulnerable to hazards such as hurricanes and flooding. The major categories of the Building Conditions Assessment include:

- Exterior Building Elements
- Interior Building Elements
- Mechanical Systems
- Safety/Code Compliance

Specific detail about the roof, ceiling, walls, windows, doors, lighting, means of exit and plumbing and electrical are sought. Each element within each section of the Building Condition Assessment is assigned a score. The scores for each section add up to 100. The scores are converted to a rating based on the following:

Score	Rating	Definition
80- 100	1	The overall building condition is Good to Excellent and makes a positive contribution to educational environment.
60- 80	2	The building is generally suitable. Minor improvements are needed.
40- 60	3	The building has suitable characteristics, but requires specific upgrades.
20- 40	4	The building has serious deficiencies.
Under 20	5	The building is unsuitable for intended use.

As with the Safety Compliance checklist, 80 points (80%) is required for certification/recognition.

1.4 Table 4 – Green Assessment

Table 4 comprises the green checklist. It is comprised of a series of questions built around sustainability and environmental responsibility. The Green Assessment covers four (4) educational institution-types; early childhood (which includes day care centres and pre-schools), primary, secondary and tertiary institutions. There are very few questions that do not apply to all types of institutions. Each question has been categorised by theme, area and section and a weight value was ascribed to most of the question to allow for scoring/certification.

The overarching green themes are: Sustainability Management; Natural Resources, Indoor Environment, Hazardous Chemicals and Materials, Facility and Grounds and Food Service.

The checklist included as Table 4 is divided into the following 8 sub-sections:

- Sustainability Management pertains to formulating supporting policies, raising awareness and establishing a baseline from which improvements can be measured.
- Natural Resources focus on reducing water and energy use and purchasing practices.
- Indoor Environment focuses on maintaining indoor conditions conducive to teaching and learning.

- Hazardous Chemicals and Materials focuses on the proper labelling, handling, use and storage of chemicals and the identification and proper management of hazardous materials such as asbestos.
- Facility and Grounds pertains to the proper pest management in an effort to reduce or eliminate the use of and exposure to harmful chemicals, proper waste storage and disposal and overall maintenance.
- Food Service pertains to the sustainability of the foods used and proper management of food waste.

A total number of 534 points are available using the green checklist; however, only a secondary or tertiary institution will be able to achieve that many points. Early childhood schools will be able to achieve a maximum of 468 points and Primary schools will achieve 478 points. Questions that are not applicable should not be included in the Maximum Points Achievable tally as the results will be skewed and not reflective of the situation. Regardless of the points available, a threshold of 80% is needed for a facility to be considered green.

There are several critical standards throughout the checklist which must be met in order for a school to be certified/recognized as Green. If any of those critical standards are not met the school cannot be certified. A total of 80% or including all critical standards is required for certification/recognition. Critical standards are indicated with an 'X' in the last column. The type of facility that the question applies to (pre-school, primary, secondary and tertiary) is also indicated with an 'X'.

2. Critical Questions which must be addressed to certify a school

Critical questions are that subset that an individual educational institution **must** be in compliance with to ensure the safety of all stakeholders within the school environment. Critical questions which are in non-compliance will preclude certification until the underlying standard is met, irrespective of the cumulative score derived after inspection. Certification will not be awarded unless the actions identified by the inspectors/evaluators have been addressed by an individual school. All critical questions must be addressed accordingly.

3. Certification Threshold

Certification can be achieved by meeting two conditions: compliance with a core set of standards which must be met (known as critical standards) and the attainment of a minimum numeric value, which is the sum of all of the standards which the school is in compliance with. A full score value for a standard goes towards certification. If the school does not meet the standard, it will receive no score towards certification for the particular standard. 80% of the standards must be met in order for the school to be certified as either safe or green or both, which will act as the certification/recognition threshold value. The critical standards are defined indicated in Tables 3 and 4.

A school may be certified by attaining a minimum certification threshold value and being in compliance with all critical questions notwithstanding what the final numerical score derived from compliant standards. All critical standards must be met.

NOTE:

It is recommended that persons familiar with safety issues and building maintenance and/or operations personnel such as engineers, disaster managers or environmental specialists perform the assessment and site inspection. It is further recommended that any structural issues identified or suspected be properly evaluated by an engineer.

4. Improving Based on the Assessments

Once a baseline is established with an initial inspection/assessment and a school does not meet certification requirements, a prescriptive plan can be developed to address the issues identified to assist the school in charting a path to certification. Specific detail about potential issues in combination with answers from the safety checklist can be used to guide upgrades/retrofit works/improvement as they will point to areas that need improvement. The School Safety Compliance Checklist, the Building Condition Assessment and the Green Checklist will point to areas where the school is deficient. Improvements in these areas will improve the score of the facility. A template School Improvement Plan is provided as **Table 5** to help schools plan improvement/actions. If all identified deficiencies are corrected, the path towards certification is complete. Once all of the identified issues are addressed, a re-inspection can be undertaken. However, if the school requires additional interventions to complete their plans, further inspections may be required. The process is described in **Figure 17** below.

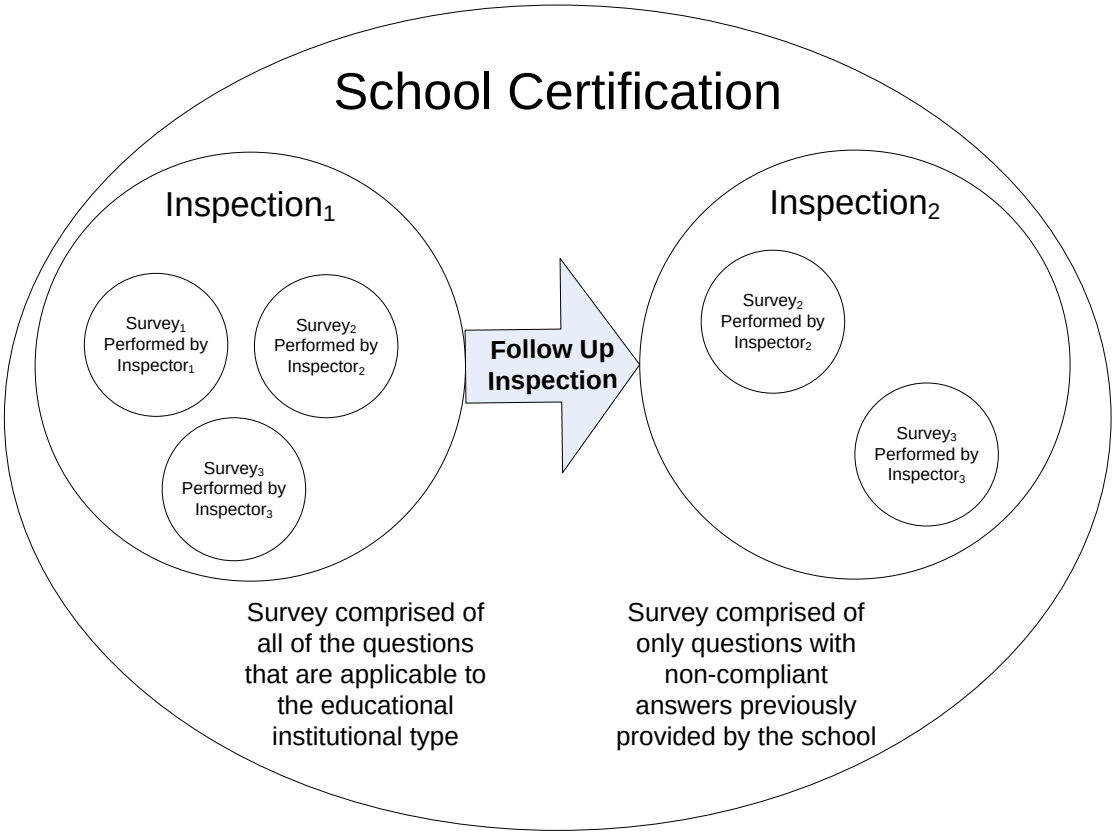


Figure 2: School Safety and Greening Certification.

Table 1: Vital Information for the Management of Safety

VITAL INFORMATION: REQUIRED FOR THE EFFECTIVE MANAGEMENT OF HEALTH & SAFETY MATTERS	
Name of School	
Type of school (Pre-school, primary, secondary, tertiary)	
Is facility private and public?	
Location	
Name of Head Teacher or Principal	
Telephone	
Email	
Year building(s) constructed	
How many buildings are contained on the school compound?	
How many classrooms are within each school building?	
What is the total school population?	
Students	**Male:** **Female:**
Teachers	**Male:** **Female:**
Non-teaching staff	**Male:** **Female:**
How many first aid kits are available for use?	
How many fire extinguishers are installed throughout the buildings?	
Was the school affected by any natural disaster in the past?	
If yes, what type of event was it and when did it occur?	
Were there any repairs as a result of the event?	
Is the school designated as an emergency shelter?	

Table 2: Questionnaire for the School Safety Compliance Standards

Name of School:

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
								N	**1°**	**2°**	**3°**	
1	1.2	Disaster Planning	1) Does the school have a disaster management plan that was developed/ tested in the last 3 years?			5		X	X	X	X	**X**
1	1.2	Disaster planning	2) If yes, was the plan updated and when?			3		X	X	X	X	
1	1.2	Disaster Planning	3) Does the school have written guidelines and procedures for managing crises dealing with: a. Natural hazards b. Medical emergencies c. Man-made hazard events I. Student and staff deaths (Crisis intervention) II. Terrorism d. Acts of violence to staff and among students e. Bullying			5		X	X	X	X	**X**
1	1.2	Disaster planning	4) Has the school submitted the emergency plan to the relevant authorities? If yes, when was it last submitted?			3		X	X	X	X	
1	1.5	Disaster Planning	5) If the school does not have anyone with first aid certification, does it have suitable and rapid means of obtaining first aid help?			4		X	X	X	X	
1	1.2	Disaster Planning	6) Is the school familiar with the National Comprehensive Disaster Management Policy and Framework, if such exists in the country?			3		X	X	X	X	
1	1.2	Disaster Planning	7) If yes, does the school plan employ the Comprehensive Disaster Management policy to guide its structure?			2		X	X	X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
1	1.1	Disaster Planning	8) Are all teachers and school staff involved in the overall response, pre-, during and post-hazard event?			5		X	X	X	X	
1	1.8	Disaster Planning	9) Are there protocols in place that refer to the relocation/transport of persons to designated "Safe Areas" in the community in the event of a disaster?			5		X	X	X	X	
1	1.8	Disaster Planning	10) Are there protocols that refer to securing these designated Safe Areas?			5		X	X	X	X	
1	1.3	Disaster Planning	11) Has the school participated in national simulation exercises conducted to test readiness and response?			5		X	X	X	X	
1	1.3	Disaster Planning	12) Has the school evaluated the results of its participation in the national simulation exercise and discussed the same with the staff?			5		X	X	X	X	
1	1.3	Disaster Planning	13) Is there a training programme in place for teachers and administration related to preparedness and response? Briefly describe the type of training received (e.g., Fire suppression, basic life support, crisis intervention/stress management (CISM), etc).			5		X	X	X	X	
1	1.3	Disaster Planning	14) Has staffs been trained in at least one aspect of disaster management or health and safety?			5		X	X	X	X	**X**
1	1.3	Disaster Planning	15) Has the school regularly drilled and simulated elements of the plan with staff, students and parents?			5		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					
1	1.2	Disaster planning	16) Has the school updated its contact list of parents or alternate adults who may pick students up in the event of a hazard event or disaster?			5		X	X	X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
3	3.3	Emergency Planning	17) Is the school's emergency plan based on any risk assessment conducted at the school?			5		X	X	X	X	
1	1.5	Emergency Planning	18) Has the school made arrangements to address incidents where multiple individuals have been injured?			3		X	X	X	X	
1	1.7	Emergency Planning	19) Does the school have easy access to fire blankets?			3		X	X	X	X	
1	1.5	Emergency Planning	20) Do you keep up-to-date student health records?			5		X	X	X	X	
1	1.5	Emergency Planning	21) Do you have a designated person on staff responsible for maintaining student health records?			5		X	X	X	X	
1	1.8	Emergency planning	22) Have the students been taught to immediately find a teacher or member of staff in the event of an emergency?			5		X	X	X	X	
1	1.8	Emergency planning	23) In the event of an emergency, do members of staff know how to shut all utilities off prior to evacuating the building?			3		X	X	X	X	
1	1.3	Emergency planning	24) Has the staffs been trained in appropriate elements of fire suppression and control?			2		X	X	X	X	
1	1.3	Emergency planning	25) Are there emergency exit signs posted/ installed?			5		X	X	X	X	**X**
1	1.8	Emergency planning	26) Have Evacuation Plans been posted by doorways or high occupancy/traffic areas?			5		X	X	X	X	**X**
1	1.8	Emergency planning	27) Is there a first aid kit available for use?			3		X	X	X	X	**X**
1	1.8	Emergency planning	28) If yes, does the first aid kit have sufficient supplies?			2		X	X	X	X	
4	4.1	Emergency planning	29) Are fire extinguishers tested and recharged on an annual basis?			5		X	X	X	X	**X**
4	4.1	Emergency planning	30) Are the smoke detectors tested regularly and their batteries changed on a regular basis?			3		X	X	X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
3	3.2	Emergency planning	31) Has the emergency/disaster plan been shared with new members of staff?			5		X	X	X	X	**X**
1	1.8	Emergency planning	32) Are relevant authorities and parents aware of alternate evacuation locations?			3		X	X	X	X	
1	1.2	Emergency planning	33) Does the school have written guidelines to account for staff and students during the event of emergencies?			3		X	X	X	X	
4	4.1	Emergency planning	34) Does the school maintain an inventory of emergency equipment and supplies? Is the inventory list been updated at least once a year?			3		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					
1	1.1	Safety Admin	35) Is there a Health and Safety Officer's position and is it currently filled?			4		X	X	X	X	
3	3.2	Safety Admin	36) Does the school have a functioning joint workplace health and safety committee or a representative elected from the employees?			3		X	X	X	X	
1	1.1	Safety Admin	37) If the Health and Safety Officer position is not filled are arrangements being made to cover this area?			3		X	X	X	X	
1	1.1	Safety Admin	38) Has the school, in consultation with the staff, prepared a written statement of the general policy with respect to the safety and health of the employees?			3		X	X	X	X	
3	3.3	Safety Admin	39) Is a copy of the national occupational safety and health policy conspicuously posted in the school, if one exists?			2		X	X	X	X	
3	3.3	Safety Admin	40) [For the High Schools and College]: Have you filed a notice to the relevant authorities stating the types of hazardous chemicals, physical agents, and the hazardous biological agents			3				X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
			present at your institution?									
3	3.3	Safety Admin	41) Has the school assessed and documented the risks to the safety of their personnel to which they are exposed whilst they are at work?			3		X	X	X	X	
3	3.3	Safety Admin	42) Has the school assessed and documented the risks to the safety of persons not in their employment (students and school visitors) arising from normal school operations?			3		X	X	X	X	
3	3.3	Safety Admin	43) Has the school identified any particular vulnerable group(s) exposed to the risks which may have been assessed?			3		X	X	X	X	
3	3.2	Safety Admin	44) Do staff meetings' minutes reflect any discussion on health and safety?			3		X	X	X	X	
3	3.2	Safety Admin	45) Has the school made reasonable provisions to educate their employees of their obligations in respect to the performance of their duties related to health and safety management?			3		X	X	X	X	
1	1.6	Safety Admin	46) Does the school maintain an operational register which records all actions taken to address health and safety matters?			4		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					
1	1.5	Medical emergencies	47) Is there a programme for the prevention and detection of allergens, such as mould and dust at schools?			4		X	X	X	X	
1	1.5	Medical emergencies	48) Do you have a dedicated nurse and/or health care provider on-staff?			3		X	X	X	X	
1	1.5	Medical emergencies	49) Is the nurse or health care provider on staff full-time?			3				X	X	
1	1.5	Medical	50) If a nurse or health care provider is not on staff,			3		X	X	X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
		emergencies	does the school have immediate access to a dedicated nurse and/or health care provider for emergencies?									
1	1.6	Medical emergencies	51) Are students and staff encouraged to report potential hazards or contaminants near to the school to the principal or designee/supervision?			5		X	X	X	X	
1	1.5	Medical emergencies	52) Has the school made provisions for the rapid transportation of injured staff or students to a hospital or health care facility?			5		X	X	X	X	
3	3.3	Medical emergencies	53) Has the school posted emergency numbers at visible locations next to their phones?			5		X	X	X	X	**X**
1	1.4	Medical emergencies	54) Do students use the services of on, or off-campus food vendors? If no food service, skip to question # 59						X	X	X	
1	1.4	Medical emergencies	55) Are the kitchen/eating area/cafeteria well maintained and kept clean for the food service?			3			X	X	X	
1	1.4	Medical emergencies	56) Is there a designated food storage area that provides adequate storage space and is secured?			3			X	X	X	
1	1.4	Medical emergencies	57) Is a there fire suppression located within or in proximity to the kitchen/eating area/cafeteria?			5			X	X	X	
1	1.4	Medical emergencies	58) Is the food service area regularly inspected for signs of rodents and other pests?			5			X	X	X	
1	1.4	Medical emergencies	59) Does the school oversee or interact with the personnel providing food services at your educational facility?			4			X	X	X	
1	1.4	Medical emergencies	60) Do the vendors providing food to students and staff have to comply with all applicable laws and regulations related to food management and			5			X	X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
			handling prior to serving the school's population?									
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					
4	4.1	Physical Plant	61) Has the physical plant and grounds been evaluated for the presence of various hazards[15]?			5		X	X	X	X	
4	4.1	Physical Plant	62) [Pre-school & Primary]: If playground equipment is present, is there a maintenance programme in place for the upkeep and maintenance of the equipment?			4		X	X			
4	4.1	Physical Plant	63) Have you taken steps to ensure that your school is earthquake safe[16]?			5		X	X	X	X	
4	4.1	Physical Plant	64) Has the school been assessed for structural integrity and soundness to minimize exposure of persons to risks to bodily injury? If so, when it was last assessed and/or inspected.			5		X	X	X	X	**X**
4	4.1	Physical Plant	65) Is a regular maintenance programme in place to ensure that the school rooms are kept in a clean state?			4		X	X	X	X	
4	4.1	Physical Plant	66) Are there policies in place to prevent overcrowding?			4		X	X	X	X	
4	4.1	Physical Plant	67) Is a regular maintenance programme in place to ensure that the school is maintained at a reasonable temperature; i.e., rooms and offices?			3		X	X	X	X	
4	4.1	Physical Plant	68) Is a regular maintenance programme in place to ensure that the school is provided with adequate ventilation?			4		X	X	X	X	

[15] Schools need to be assessed under the policy for the presence of hazards.
[16] The protocol for becoming an earthquake safe school must guide administrators on how to comply with this standard.

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
4	4.1	Physical Plant	69) Is a regular maintenance programme in place to ensure that the school is provided with adequate lighting?			4		X	X	X	X	
4	4.4	Physical Plant	70) Is a regular maintenance programme in place to ensure that the school is provided with effective means for draining floors and grounds?			4		X	X	X	X	
4	4.1	Physical Plant	71) Are drains kept clear of debris and vegetation to avoid water accumulation and breeding of mosquitoes?			3		X	X	X	X	
4	4.1	Physical Plant	72) Is a regular maintenance programme in place to ensure that the school is provided with adequate sanitary conveniences?			4		X	X	X	X	
4	4.1	Physical Plant	73) Is the school designated as a shelter? If not a shelter						X	X	X	
4	4.1	Physical Plant	74) Does the school provide accessible gender-specific bathrooms and showers available?			3			X	X	X	
4	4.1	Physical Plant	75) Has the school taken adequate measures for the prevention of fire?[17]			5		X	X	X	X	
4	4.1	Physical Plant	76) Has the school provided adequate means of escape in the event of any emergency?			5		X	X	X	X	**X**
4	4.1	Physical Plant	77) In the event of emergencies, do the exit doors open outwards?			4		X	X	X	X	
4	4.1	Physical Plant	78) Do the windows provide adequate ventilation?			4		X	X	X	X	
4	4.1	Physical Plant	79) Are the windows equipped with hurricane shutters?			5		X	X	X	X	
4	4.1	Physical Plant	80) If no, are the windows hurricane rated, designed or certified?			5		X	X	X	X	

[17] Fire prevention measures may include the possible presence of sprinklers (retrofitting buildings), labelling emergency exits at doors and fire prevention education programmes at the school level for students.

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
4	4.1	Physical Plant	81) Are the windows outfitted with screens?			3		X	X	X	X	
4	4.1	Physical Plant	82) If LPG tanks are used, are they stored and secured in a safe location?			3		X	X	X	X	
4	4.1	Physical Plant	83) Is the perimeter fence around the school in tact?			5		X	X	X	X	**X**
4	4.1	Physical Plant	84) Is the perimeter fence free from overhanging trees?			4		X	X	X	X	
4	4.2	Physical Plant	85) Has the facility been inspected for the presence of asbestos or lead paints? If yes, skip to question 86.			5		X	X	X	X	
4	4.2	Physical Plant	86) If no, are plans being made to have the facility inspected?			5		X	X	X	X	
4	4.2	Physical Plant	87) If asbestos or lead paint has been found to be present, has a plan for containment and removal been devised?			5		X	X	X	X	
4	4.2	Physical Plant	88) Does the school have and use cisterns or reserve water storage containers? If no, skip to question 90.					X	X	X	X	**X**
4	4.2	Physical Plant	89) If yes, does the cisterns or water storage container provide adequate water supply for at least 3 days?			5		X	X	X	X	
4	4.2	Physical Plant	90) Is the water from the cistern or storage tanks used for consumption or cooking?					X	X	X	X	
4	4.2	Physical Plant	91) If yes, is there a water filtration system connected to the reserve water supply lines?			5		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
1	1.4	Physical safety	92) Do you have on-campus security (whether contracted or public[18])? If no security is present skip to question 94.			3			X	X	X	
1	1.4	Physical safety	93) Do you oversee or interact with the personnel providing security services at your educational facility?			3			X	X	X	
1	1.8	Physical safety	94) Are security personnel involved in emergency drills?			4			X	X	X	
1	1.4	Physical safety	95) Who do the on-site security personnel report to in the event of a security issue?						X	X	X	
2	2.1	Physical safety	96) If an act of violence is committed within the school, what is the role of on-campus security in the event?						X	X	X	
2	2.1	Physical safety	97) Are visitors screened, required to sign in, or issued passes while on school grounds?			4		X	X	X	X	
2	2.1	Physical safety	98) [Pre-school]: Is there a procedure in place to monitor who drops off and collects children?			4		X				
2	2.1	Physical safety	99) What is your strategy to mitigate the escalation of a violent event? Provide specific steps for response.					X	X	X	X	
2	2.1	Physical safety	100) Do you have policies or guidelines for detecting and handling bullying and other acts of intimidation and aggression?			3		X	X	X	X	
2	2.1	Physical safety	101) Do you have a method of accounting for students that leave on school sponsored adventure/activities?			5		X	X	X	X	
2	2.1	Physical safety	102) Do you have a way of addressing complications that occur off-site during sponsored adventure/activities?			4		X	X	X	X	

[18] Auxiliary Force's Crossing Guards or a Private Firm.

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
2	2.1	Physical safety	103) What is the number of responsible adults to students (ratio) that is required for the performance of off-school visits?					X	X	X	X	
2	2.3	Physical safety	104) Do you have a system for accounting the number and purpose of the vehicles that enter and leave the premises?			3		X	X	X	X	
2	2.3	Physical safety	105) Do you control areas where cars may enter or leave the school premises through clearly labelled routes?			3		X	X	X	X	
3	3.3	Physical safety	106) Does the school have adequate means to monitor staff and students who may be under the influence of alcohol, addictive drugs or any other substance which may adversely affect the health and safety of other staff members or students or other persons found within the premises?[19]			5		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE												
POINTS ACHIEVED												
3	3.3	Protection of the Person	107) Does the school provide or distribute safety glasses/goggles prior to the use of chemicals at its facility?			5				X	X	
3	3.3	Protection of the Person	108) Does the school provide gloves or other skin protection prior to the use of a potentially hazardous chemical?			5				X	X	
3	3.3	Protection of the Person	109) Does the school provide lab coats, aprons or other protective equipment prior to handling potentially hazardous chemicals?			5				X	X	

[19] This may be implemented through the establishment of a training programme for the identification of individuals who may be under the influence of substances, prior to monitoring of adverse behaviours which may arise.

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
3	3.3	Protection of the Person	110) Does the school have accessible eye wash stations?			5				X	X	
3	3.3	Protection of the Person	111) Does the school provide deluge showers at the labs?			5				X	X	
3	3.3	Protection of the Person	112) Have arrangements been made to restrict entry into an area where there may be exposure to risk (of head, eye, ear, hand or foot injury from air contaminants or any other bodily injury) unless a member of staff or student is wearing the protective clothing or device provided to them?			5		X	X	X	X	
3	3.3	Protection of the Person	113) Has the school conspicuously displayed a notice in areas where protective clothing or devices are required to be worn? Where construction may occur within a school compound has the school posted a notice at the construction site warning individuals of the activity?			5		X	X	X	X	
3	3.5	Protection of the Person	114) Where a member of staff or a student may be required to manually lift, carry or move anything above a specified maximum weight, has the school made arrangements to protect said person from bodily harm or injury? If so, please specify.			3		X	X	X	X	
3	3.3	Protection of the Person	115) Where a process involves heat or steam, have adequate facilities to protect a person from the heat or steam been provided and maintained?			5				X	X	
3	3.1	Protection of the	116) Has the school, after being notified by a female employee that she is pregnant and upon			5				X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
		Person	production of a medical certificate to that effect, adapted the working conditions of the female employee to ensure that she is not involved in the use of, or exposed to, chemicals, substances or anything dangerous to the health of the unborn child?									
3	3.1	Protection of the Person	117) Has the school made provisions for employees six months after the birth of her child, or employees who are nursing children not to perform work that is hazardous to her safety and health of the mother or the health of the children?			5		X	X	X	X	
3	3.3	Protection of the Person	118) Has the school instructed the employees and any young person on the appropriate use and safety precautions required for the use of potentially hazardous machinery?			5				X	X	
3	3.3	Protection of the Person	119) Has the school provided adequate supervision by a person who has special knowledge and experience in the operation of a hazardous machine?			5				X	X	
3	3.3	Protection of the Person	120) Has the school taken adequate steps to prevent hearing impairment caused by noise, and diseases caused by vibration, from occurring to persons in, or in the vicinity of the workplace?			5				X	X	
3	3.3	Protection of the Person	121) Has the school ensured that protective equipment necessary to protect students and employees from noise and vibration are worn or used at all appropriate times?			5		X	X			
3	3.1	Protection of the Person	122) Has the school ensured that the initial and periodic medical evaluations of those employees exposed to the risk of injury to their hearing or of developing a condition caused by			3				X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
			vibration has occurred?									
3	3.1	Protection of the Person	104.1) Has the school kept a record of medical evaluations of those employees exposed to the risk of injury to their hearing or of developing a condition caused by vibration, including audiometric examinations along with the periodic evaluation of the work environment?			2				X	X	
3	3.3	Protection of the Person	123) Has the school made arrangements for an employee to report to his or her employer or supervisor the absence of, or defect in, any equipment or protective device and clothing of which he or she is aware and which may endanger himself or herself or another employee or person?			5		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**XX**						
POINTS ACHIEVED							**XX**					
4	4.3	Hazardous chemicals and materials	124) Has an up-to-date inventory of all hazardous and/or cleaning chemicals been prepared?			5		X	X	X	X	**X**
4	4.3	Hazardous chemicals and materials	125) Is the inventory of hazardous and/ or cleaning chemicals properly stored and secured?			5		X	X	X	X	**X**
3	3.2	Hazardous chemicals and materials	126) Has the school furnished a copy of the most recent version of the inventory and of every unexpired chemical safety data sheet to a representative of the health and safety committee, or the health and safety employee representative?			5				X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
4	4.3	Hazardous chemicals and materials	127) *[Schools operating with chemistry labs or other types of facilities where students and staff may be exposed to chemicals]:* Has the school taken all necessary precautions to prevent eating or the storage of food at facilities where dangerous chemicals may be used?			4				X	X	
4	4.3	Hazardous chemicals and materials	128) Has the school obtained or prepared up-to-date chemical safety data sheets for all hazardous chemicals present on the facility?			5				X	X	
3	3.3	Hazardous chemicals and materials	129) Has the school ensured that the information available in chemical safety data sheets is available in English and any other language indicated by the situation at the school?			5				X	X	
4	4.3	Hazardous chemicals and materials	130) *[Schools operating with chemistry labs/automotive shops/tech vocational facilities or other types of facilities where students and staff may be exposed to chemicals]:* Has the school made arrangements with respect to any process involving the use of, or exposure to, products containing benzene (which term means the aromatic hydrocarbon C_6H_6 itself or any product the benzene content of which exceeds one percent by volume) or other potentially dangerous substance, to find harmless or less harmful substitutes which may be used if they are available?			3				X	X	
4	4.3	Hazardous chemicals and materials	131) If benzene or other aromatic hydrocarbon substitutes are not available then is the school carrying out the process, as far as is practicable, in an enclosed system or where an enclosed system is not practicable, within equipment with effective means to ensure the removal of			4				X	X	

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
			benzene fumes to the extent necessary for the protection of the health of staff and students?									
3	3.3	Hazardous chemicals and materials	132) Where a school must store and work with benzene, has the word "benzene" and appropriate danger signals been clearly and visibly posted on any container holding benzene?			4				X	X	
1	1.3	Hazardous chemicals and materials	133) Has any member of the school's staff who may be exposed to benzene received appropriate instructions about safeguarding health and preventing accidents, as well as about action to be taken if there is any evidence of benzene poisoning?			5				X	X	
3	3.3	Hazardous chemicals and materials	134) Has the school ensured that all hazardous chemicals present on the facility grounds are labelled in a way easily understandable to the employees and students?			5				X	X	
4	4.3	Hazardous chemicals and materials	135) Has the school obtained or prepared up-to-date chemical safety data sheets for all hazardous chemicals present on the facility grounds?			5				X	X	
3	3.3	Hazardous chemicals and materials	136) Has the school ensured that the information available in chemical safety data sheets is available in English and any other language indicated by the situation at the school?			5				X	X	
4	4.3	Hazardous chemicals and materials	137) Has the school ensured that when hazardous chemicals are transferred into other containers or equipment, the contents are indicated in a manner which will make known to employees, their identity, any hazards associated with their use, and any safety precautions to be observed?			5				X	X	**X**

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
4	4.3	Hazardous chemicals and materials	138) Has the school ensured that information is provided on the handling and safe disposal of hazardous chemicals which are no longer required and containers which have been emptied but which may contain residues of hazardous chemicals, so that the risk to safety and health and to the environment is eliminated or minimized?			4				X	X	
4	4.3	Hazardous chemicals and materials	139) Has the school ensured that a hazardous chemical is not used, handled or stored unless the prescribed requirements concerning identification, chemical safety data sheets and worker instruction and training of the use of the chemicals are met?			4				X	X	
3	3.2	Hazardous chemicals and materials	140) Has the school made available access to information by any employee on any unexpired chemical safety data sheet regarding hazardous chemicals at the workplace?			4				X	X	
4	4.3	Hazardous chemicals and materials	141) Has the school ensured that a hazardous chemical is not used, handled or stored unless the prescribed requirements concerning identification, chemical safety data sheets and worker instruction and training of the use of the chemicals are met?			4				X	X	
3	3.3	Hazardous chemicals and materials	142) Once a report of a possible hazardous material or contaminant is made, does the school have a mechanism for reporting the same to authorities and following up on the incident?			4		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE												
POINTS ACHIEVED												

Safety Theme	Safety Area	Safety Section	Question	Answer (Yes/No)	Comments	Weight	Score	Educational Institutional Type *(Early Childhood, Primary, Secondary, Tertiary)*				Critical Standard
					TOTAL MAXIMUM POINTS	**XXX**						
					TOTAL POINTS ACHIEVED		**XXX (XX%)**					
					POINTS OR PERCENTAGE THRESHOLD NEEDED FOR CERTIFICATION		**XXX (XX%)**					

Table 3: Building Condition Assessment

Name of School:

A condition audit will be performed to determine the current condition and expected remaining economic life of the building's components. It is a vehicle for producing a complete inventory of a building (including equipment) that identifies deficiencies that affect safety within schools. Areas to be examined will include the structure, external walls and roof, interior building elements, mechanical systems and safety/ Code compliance which include fire safety items and provisions for handicap accessibility.

Component	Systems	Scoring Range	Score Achieved	Comments
1.0 Exterior Building Elements	1.1 Foundation/ Structure	4- 12		
	1.2 Exterior Walls	1- 8		
	1.3 Roof System	0- 7		
	1.4 Windows/ Doors	0- 3		
	1.5 Trims / Finishes	0- 3		
	Total Exterior Score	**33**		
2.0 Interior Building Elements	2.1 Ceiling	0- 6		
	2.2 Interior Walls/ Doors	0- 6		
	2.3 Floors	0- 6		
	2.4 Fixed Furniture Equipment	0- 3		
	Total Interior Score	**21**		
3.0 Mechanical Systems	3.1 Ventilation	1- 6		
	3.2 Electrical	0- 6		
	3.3 Plumbing	0- 4		
	3.4 Lighting (Interior & Exterior)	0- 4		
	Total Mechanical Systems Score	**20**		
4.0 Safety/ Code Compliance	4.1 Means of Exit	0- 6		
	4.2 Fire Control	1- 4		

Component	Systems	Scoring Range	Score Achieved	Comments
	4.3 Fire Alarm	1- 4		
	4.4 Emergency Lighting	0- 2		
	4.5 Fire Resistance	1- 4		
	4.4 Provisions for Handicap/ Accessibility	1- 6		
	Total Safety/Code Compliance Score	**26**		
Total Building Condition Score				

Code score conversion	Score	Rating	Definition
	80- 100	1	The overall building condition is Good to Excellent and makes a positive contribution to educational environment.
	60- 80	2	The building is generally suitable. Minor improvements are needed.
	40- 60	3	The building has suitable characteristics, but requires specific upgrades.
	20- 40	4	The building has serious deficiencies.
	Under 20	5	The building is unsuitable for intended use.

Overall Conclusions

Evaluator Signature _____ **Print Name** _____	**Date**
School Representative Signature _____ **Print Name** _____	**Date**

SCORING GUIDE

The basis of this guide is to provide a set of detailed criteria to aid in assessing and scoring each system within each building component. The detailed rating system provides consistency and justification for the rating of each system of each component. The Building Condition Assessment (BCA) is grouped into four (4) categories of building components. These include Exterior, Interior, Mechanical systems and Safety/Code Compliance.

1.0 Exterior Building Elements

1.1. Foundation/ Structure (Score range: 4-12)

- **Good (10-12):** No visible sign of distress or failure in building. Routine Maintenance will be adequate.
- **Fair (7-9):** Minor shrinkage cracks in floor. No disruption of service in the facility. A few minor cracks in walls with no intrusion back into building. Minor repair required.
- **Poor (5-6):** Settlement cracks in floor creating problems for certain equipment. Distinct signs of roof or wall leaks and water penetrating into building. Major repair required.
- **Unsatisfactory (4):** Foundation, columns, beams or structural walls showing signs of failure or distress such as settling, subsidence, severe cracking or crushing. Replacement and restricted access should be scheduled as soon as possible.

1.2. Exterior Walls (Score range: 1-8)

- **Good (7-8):** No apparent problems visible under close inspection. No sign of water intrusion or damage. Routine maintenance adequate.
- **Fair (5-6):** Slight cracking in face of wall. Any water intrusion inconsequential. Minor repair required.
- **Poor (3-4):** Water intrusion apparent into building and calls for immediate attention. Major repair required.
- **Unsatisfactory (1-2):** Extensive damage to building interior materials/ systems obvious. Emergency attention/ possible replacement required.

1.3. Roof system (Score range 0-7)

- **Good (6-7):** Roof membrane, flashing and entire system sound and complete. No failure or problems of any kind apparent.
- **Fair (4-5):** No apparent failure evident. Minor repairable problems visible such as built up membrane or roofing, loose or displaced flashing and any broken tiles/shingles/roof sheeting on a sloped roof. Slight cracking on flat concrete roofs. Minor repair required.
- **Poor (2-3):** Failure apparent. Water intrusion obvious. Major repair required.
- **Unsatisfactory (0-1):** Severe and extensive failure of system is apparent resulting in extensive damage to building, disruption of operation or damage to systems or equipment.

1.4. Windows/ Doors (Score range 0-3)

- **Good (3):** All windows and doors in excellent shape with all operations normal.
- **Fair (2):** Slight problems with doors or windows which are easily repaired or adjusted such as broken panes, hardware, caulking or other operational systems. Minor repair required.
- **Poor (1):** Significant problems affecting the operation of doors and windows such as locking devices and ease of operating. Failure of any emergency devices and windows lacking good thermal characteristics.
- **Unsatisfactory (0):** Extensive failure of emergency devices, doors and windows are inoperable due to broken parts or the doors or windows themselves.

1.5. Trims / Finishes (Score range 0-3)

- **Good (3):** All trim including gutters, downspout, fascia and soffits are secured and in excellent condition. All caulking in place and complete.
- **Fair (2):** Only minor repair called for such as re-caulking or painting of trim.
- **Poor (1):** Significant problems occurring at roof fascia, gutters and/or at jambs and sills of doors and windows. Major repairs needed and apparent condition calls for immediate attention.
- **Unsatisfactory (0):** Obvious signs of intrusion or failure in building envelope. Damage by intrusion of elements extensive. Gutters. Downspouts, fascia and soffits in bad shape. Replacement required.

2. Interior Building Elements

2.1. Ceiling (Score range 0-6)

- **Good (5-6):** No apparent deficiencies or problems
- **Fair (3-4):** Slight soiling or discoloration visible. Minor repair needed to bring surfaces back to good appearance.
- **Poor (1-2):** Soiled and stained condition apparent with cracking. Condition possibly caused by water or other liquids. Ceiling tiles may be missing or broken or discoloured and should be replaced. Plaster needs to be repaired or surfaces painted or treated.
- **Unsatisfactory (0):** Broken, chipped, sagging and severely stained material present or containing asbestos. Unsafe and hazardous condition must be corrected.

2.2. Interior Wall/ Doors (Scoring range 0-6)

- **Good (5-6):** All interior wall surfaces are in clean serviceable condition and free of cracks. Interior doors are in good condition with hardware.
- **Fair (3-4):** The walls are soiled and worn with cracked surfaces beginning to appear. Minor repair required to improve condition to walls and doors.
- **Poor (1-2):** Walls are badly soiled or stained surfaces with cracking which can be repaired and patched. Significant problems evident to the doors such as locking devices and ease of operating. Major repair required.
- **Unsatisfactory (0):** Walls in very bad condition with fallen plaster or severely impaired surfaces. Wall tiles broken or missing. Doors are inoperable due to broken parts and hardware. Deficiencies causing extremely unsafe conditions.

2.3. Flooring (Score range 0-6)

- **Good (5-6):** All floor tiles or treatments are in good condition. Routine maintenance is adequate to preserve quality of finishes and prevent premature aging.
- **Fair (3-4):** Signs of wear apparent. Will require minor repair works to improve tiles or floor treatment.
- **Poor (1-2):** Significant signs of wear apparent. Material nearing end of service life. Replacement and renewal of finish is required.
- **Unsatisfactory (0):** Condition of tiles or floor treatment poses a hazardous condition (either slipping or tripping). Finish of floor is worn out, carpet soiled, unsightly condition or floor tiles broken or chipped.

2.4. Fixed Furniture Equipment (Score range 0-3)

- **Good (3):** All equipment (eg. Kitchen refrigerator, microwave, freezers, fume hoods, stoves, etc.) are in good working condition.
- **Fair (2):** All equipment are worn and well used. Parts may need to be replaced. Equipment is in working order but may require minor repairs.

- **Poor (1):** Fairly frequents breakdowns with some loss of service time. Parts may be difficult to obtain or expensive. Equipment may be insufficient and service life is limited. Major repair required.
- **Unsatisfactory (0):** Breakdowns are frequent. Parts no longer available or cost prohibitive. Equipment out of service most of the time. Safety devices missing or inadequate. Replacement required as soon as possible.

3.0 Mechanical Systems

3.1 Ventilation (Score range 1-6)

- **Good (6):** All ventilation equipment (a/c units, fans, compressors, ducts, diffusers, etc.) are in good working condition. Equipment is free from rust and maintains temperature within a reasonable comfort level. Equipment also provides high efficiency. Routine maintenance required.
- **Fair (4-5):** Equipment in working order but parts may need to be replaced. Minor repairs required.
- **Poor (2-3):** Ventilation systems frequently breakdown with loss of service and efficiency. Equipment may be inefficient and requires major repair.
- **Unsatisfactory (1):** Breakdowns are frequent. Equipment's are out of service most of the time or no ventilation equipment are available or operational. Replacements are required.

3.2 Electrical (Score range 0-6)

- **Good (5- 6):** All electrical breakers are properly loaded, electric outlets, switches and other units are properly grounded and in good working condition. Overall electrical system has been inspected and meets electrical code requirements
- **Fair (3-4):** Coverage and accessibility of outlets are limited. Slight problems with electrical outlets and switches with covers and possible grounding. Receptacles and breakers require minor repairs required.
- **Poor (1-2):** Faulty wiring and receptacles (outlets and switches) apparent in the building causing frequent power surges and possible damage to equipment. Evidence of exposed conduits and electrical wiring. Major repair required.
- **Unsatisfactory (0):** Majority of electrical components (outlets, breakers, wiring, switches, etc.) are in bad shape. Extensive replacement of components required and possible overhaul of electrical wiring throughout the entire building. Electrical inspection required along with replacements of major electrical components.

3.3 Plumbing (Score range 0-4)

- **Good (3- 4):** All water lines, drain pipes, vents, clean-outs, faucets, sinks, gas-lines, shut off values and other sanitary fixtures are in good working condition. Overall system has been inspected and meets plumbing code requirements. Routine maintenance required.
- **Fair (2):** Minor repairs required to all plumbing elements. Slight problems evident with faucets dripping, toilets missing seats, shower heads leaking etc. Replacement parts required to remedy minor issues.
- **Poor (1): F**ixtures and fittings are inefficient and causing loss of water. Evidence of broken lines, vents and shut-off valves are present and causes shortage of water use. Major repair required.
- **Unsatisfactory (0):** Majority of plumbing fixtures and fittings and other plumbing components such as shut-off values, broken pipes are in bad shape and non-operational. Extensive replacement of components required.

3.4 Lighting (Score range 0-4)

- **Good (3- 4):** All lighting components are in good working condition and provide proper light intensity. Outdoor lighting is controlled by photocell. Routine maintenance required.
- **Fair (2):** Light fixtures shows signs of worn and slight deterioration. Components are still in working order but require minor repairs.
- **Poor (1):** Lighting may be inefficient and service life is limited. Some fixtures are hanging from connections and provide limited illumination or coverage to rooms or grounds. Major repair required.
- **Unsatisfactory (0):** Most light fixtures are out-dated and non-operational. Safety devices are missing or photocells not available. Replacements required.

4.0 Mechanical Systems

4.1 Means of Exit (Score range 0-6)

- **Good (5-6):** All exit doors are easy to open with panic bar locks and are visible with well-lighted exit signage above doors. Exit and exit access corridors are well lighted with every area of the building providing at least 2 exits. Width of exit doors, staircases (two or more story bldgs.) are wide enough for evacuation and comply with local building codes. Routine maintenance required.
- **Fair (3-4):** All exit door safety mechanism and exit signage are in good working order but may need replacement parts or minor repairs. Exit routes provide fair means of exit.
- **Poor (1-2):** Exit access routes are limited and accessible. Upgrade of exit signage and safety mechanisms to exit doors required. Corridors are not well lighted. Major works required.
- **Unsatisfactory (0):** Exit doors are damaged and/or not equipped with safety mechanism. Corridors are not well lighted and exit signage are damaged and needs replacement or not available.

4.2 Fire Control (Score range 1-4)

- **Good (4):** Portable chemical fire extinguishers and fire hoses are located throughout the building. All extinguishers have been checked by the local fire department authorities and are annually checked and certified. Special extinguishing systems (halon or CO2) are available for hazardous areas such as electrical rooms Fire separation walls exist for shafts and corridors. Systems are in good working condition.
- **Fair (3):** Fire control equipment is in working order but parts may need to be replaced in the system. Fire extinguishers require charge and recertification. Minor repairs required.
- **Poor (2):** Equipment may be inefficient and limited throughout the building. Fire extinguishers are damaged and required major repair or replacement.
- **Unsatisfactory (1):** No fire control elements present. Fire extinguishers are not available.

4.3 Fire Alarm (Score range 1-4)

- **Good (4):** The building is equipped with a fire alarm system supplied with emergency power and smoke detectors that are connected to a permanent and visible central fire alarm panel. The system is also connected to the local fire department system. A voice communication system is integrated in the system with a sound alarm that exists throughout the building. If sprinkler system exists, a hydraulic operated alarm bell, actuated by the flow of sprinkler water is present. System in good working condition.
- **Fair (3):** Equipment is in working order but parts may need to be replaced in the system. Minor repairs required.
- **Poor (2):** The fire alarm systems frequently breakdown with loss of service. Equipment may be inefficient and requires major repair. If no fire alarm present, smoke detectors are available for means of fire alarm.
- **Unsatisfactory (1):** No fire alarm systems and smoke detectors are available.

4.4 Emergency Lighting (Score range 0-2)

- **Good (2):** All Emergency lighting is in good working condition and meets local and international standards. Equipment is free from rust and provides adequate illumination in large areas such as corridors and exits. Equipment also provides high efficiency.
- **Fair (1):** Equipment is in working order but parts (backup batteries or cells) may need to be replaced. Minor repairs required.
- **Unsatisfactory (0):** The emergency lightings are non-operational and require replacement. Lighting not available in the building.

4.5 Fire Resistance (Score range 1-4)

- **Good (4):** All floors and columns are constructed of concrete and walls of concrete or blocks. Timber columns, walls and metal stud walls are covered with gypsum board (all sides). All stairs are concrete or fire proofed steel; one hour rated fire separation walls for one story building and two hour rated for two story buildings.
- **Fair (3):** Fire resistance is possible but minor upgrades needed of critical elements.
- **Poor (2):** Certain elements of fire resistance are not met. Building provides little fire resistance. Major upgrades are required.
- **Unsatisfactory (1):** Building provides no fire resistance.

4.6 Provision for Accessibility (Score range 1-6)

- **Good (6):** Accessibility requirements for physically disabled are completely met. All levels of the building are accessible. All doorways and corridors are of adequate width. All bathrooms are appropriately equipped.
- **Fair (4-5):** Accessibility is possible but inconvenient or, due to the age of the building, all levels are not directly accessible (e.g. travel between levels require exiting the building or using a long or indirect route)
- **Poor (2-3):** Certain accessibility requirements are not met and special measures have to be taken to assist the physically challenged to function. Some levels or areas not accessible. Bathrooms not appropriately equipped.
- **Unsatisfactory (1):** Building inaccessible to physically challenged. No access to any level

Table4: Green Assessment

Name of School:

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
1	1.1	Sustainability Management	1)Has a Green Policy Statement been developed for the school?			5		X	X	X	X	**X**
1	1.1	Sustainability Management	2)Has a coordinator/ champion been appointed to oversee the application of Green initiatives throughout the school and to work on such efforts?			5		X	X	X	X	
1	1.1	Sustainability Management	3)Has a walk -through of the school been completed to assess current environmental conditions and areas for improvement?			5		X	X	X	X	
1	1.4	Sustainability Management	4)Has a water audit been completed?			5		X	X	X	X	**X**
1	1.4	Sustainability Management	5)Has an energy audit been conducted?			5		X	X	X	X	**X**
1	1.4	Sustainability Management	6)Has a facility wide waste audit been conduced?			5		X	X	X	X	**X**
1	1.2	Sustainability Management	7)Have operations within the school been identified where large quantities of water and energy are used?			5		X	X	X	X	
1	1.3	Sustainability Management	8)Has a method been developed to capture baseline data, track and report on the progress being made with the school's greening efforts including calculation and quantification of savings?			5		X	X	X	X	
1	1.4	Sustainability Management	9)Have suggestions from employees and students been documented and have these been incorporated in an environmental programme?			4		X	X	X	X	
1	1.1	Sustainability	10) Have incentives, rewards or recognition for			3		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		Management	employees and students who take a leadership role in the school's greening efforts been developed and offered?									
1	1.4	Sustainability Management	11) Has training been provided to staff and students on new products, equipment and processes?			4		X	X	X	X	
1	1.4	Sustainability Management	12) Has the school sought recognition for its green efforts and shared its experiences with other schools?			3		X	X	X	X	
1	1.4	Sustainability Management	13) Has a system been developed to build permanence into the school's green programme through incorporation into core operations and curriculum?			5		X	X	X	X	
1	1.1	Sustainability Management	14) Are local produce or products utilized in food preparation??			4				X	X	**X**
MAXIMUM POINTS ACHIEVABLE						**63**						
POINTS ACHEIVED												
2	2.1	Natural Resources	15) Have purchasing records been reviewed to determine where the highest expenses are located?			4		X	X	X	X	
2	2.1	Natural Resources	16) Are print jobs ordered on post consumer recycled paper?			4		X	X	X	X	
2	2.1	Natural Resources	17) Are supplies and equipment purchased made with recycled materials?			4		X	X	X	X	
2	2.1	Natural Resources	18) Is a recycling programme developed and enforced?			5		X	X	X	X	**X**
2	2.2	Natural Resources	19) Have sub-meters been installed monitor water use and identify leaks?			3		X	X	X	X	
2	2.2	Natural Resources	20) Is there a system for reporting leaks to maintenance staff and having them fixed in a timely			5		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
			fashion?									
2	2.2	Natural Resources	21) Is running water discouraged when washing hands?			4		X	X	X	X	
2	2.2	Natural Resources	22) Are hardy, native vegetation used in landscaping?			4		X	X	X	X	
2	2.2	Natural Resources	23) Is mulch used around plants and trees to retain moisture?			4		X	X	X	X	
2	2.1	Natural Resources	24) If sprinklers are available, are they kept directly on grassy areas and not on pavements?			4		X	X	X	X	
2	2.1	Natural Resources	25) Is watering of landscape performed during the cooler parts of the day to minimize evaporative loss?			3		X	X	X	X	
2	2.2	Natural Resources	26) Are water efficient plumbing fixtures such as aerators, dual flush toilets, motion-activated or touch- faucets for lavatories or aerated showerheads used?			5		X	X	X	X	
2	2.1	Natural Resources	27) Is rainwater collected for irrigation and other non-potable uses?			5		X	X	X	X	
2	2.2	Natural Resources	28) Are the building systems (fans, pumps, air conditioners) operating efficiently and are regular inspections and preventative maintenance carried out?			5		X	X	X	X	
2	2.1	Natural Resources	29) Are energy efficient light bulbs used?			5		X	X	X	X	
2	2.1	Natural Resources	30) Are lights and fixtures cleaned at least every 2 years to keep light output high?			4		X	X	X	X	
2	2.2	Natural Resources	31) If tubular light fixtures are present, have they been converted to models that use higher efficiency bulbs?			5		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
2	2.1	Natural Resources	32) If exit signs contain incandescent bulbs, have they been replaced with energy efficient bulbs?			3		X	X	X	X	
2	2.1	Natural Resources	33) Have double pane windows or windows with low emission coating been installed in air conditioned spaces?			4		X	X	X	X	
2	2.1	Natural Resources	34) Have damaged windows and doors been replaced to reduce cooling loads?			5		X	X	X	X	
2	2.1	Natural Resources	35) Are lights in unoccupied rooms and machines turned off during non-use hours?			5		X	X	X	X	
2	2.1	Natural Resources	36) Are time clocks, occupancy sensors and dimming controls installed to reduce energy use for lighting?			3		X	X	X	X	
2	2.2	Natural Resources	37) Have work orders been created to report climate control problems that may require service?			3		X	X	X	X	
2	2.3	Natural Resources	38) Are Energy Star or other efficiency-labelled copiers, fax machines, refrigerators, computers and printers purchased?			5		X	X	X	X	
2	2.2	Natural Resources	39) Is air conditioning equipment sized correctly for the demands of the area/rooms they cool?			5		X	X	X	X	
2	2.1	Natural Resources	40) Has on site renewable energy systems such a photovoltaic system or solar panels been considered to generate a portion of the school's energy use?			4		X	X	X	X	
2	2.1	Natural Resources	41) If hot water is provided, is it through solar hot water systems?			5		X	X	X	X	
2	2.1	Natural Resources	42) Are practices that reduce waste paper encouraged?			5		X	X	X	X	X
2	2.1	Natural Resources	43) Is electronic mail used to send messages instead of written memos?			4		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
2	2.1	Natural Resources	44) Whenever possible are emails saved electronically instead of being printed?			4		X	X	X	X	
2	2.1	Natural Resources	45) Are online library resources encouraged rather than ordering hard copies?			3		X	X	X	X	
2	2.1	Natural Resources	46) Are fax cover sheets avoided or reused?			2		X	X	X	X	
2	2.1	Natural Resources	47) Are daily specials printed on a chalkboard or dry erase board rather than printing daily on new sheets of paper			4				X	X	
2	2.1	Natural Resources	48) Are items such as paper, aluminium cans, cardboard and plastic bottles recycled?			5		X	X	X	X	
2	2.1	Natural Resources	49) Are used manila envelopes and file folders saved and used for in-house purposes?			3		X	X	X	X	
2	2.1	Natural Resources	50) Are mailing lists updated regularly?			3		X	X	X	X	
2	2.3	Natural Resources	51) Are periodicals shared rather than receiving multiple copies?			2		X	X	X	X	
2	2.1	Natural Resources	52) Is old/outdated equipment, books or furniture donated to local organizations?			3		X	X	X	X	
2	2.1	Natural Resources	53) Is there a printer available that can print on both sides of paper?			3		X	X	X	X	
2	2.1	Natural Resources	54) Are minutes from meetings or other handouts posted on Intranet sites or circulated electronically after meetings?			3		X	X	X	X	
2	2.1	Natural Resources	55) Are chalkboards and overhead projectors available for presenting information to students rather than using paper handouts?			4			X	X	X	
2	2.1	Natural Resources	56) Is scrap paper reused by students to answer questions?			2		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
2	2.1	Natural Resources	57) Are assignments emailed to students?			3			X	X	X	
2	2.1	Natural Resources	58) Is janitorial staffs trained to practice resource efficiency such as reusing plastic garbage can liners in rooms that generate dry waste, buying bulk cleaning supplies and using plastic refillable spray bottles?			5		X	X	X	X	
2	2.3	Natural Resources	59) Have environmentally friendly guidelines for purchases been established?			3		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**176**						
POINTS ACHEIVED												
3	3.6	Indoor Environment	60) Are air conditioning/ventilation equipment filters replaced regularly or as needed?			5		X	X	X	X	
3	3.1	Indoor Environment	61) Are maintenance supplies such as paints, finishes, cleaners, caulks and sealants low volatile organic compounds (VOC)?			5		X	X	X	X	
4	4.2	Indoor Environment	62) Are “green” janitorial products used?			4		X	X	X	X	
3	3.2	Indoor Environment	63) Are spills cleaned promptly?			4		X	X	X	X	
3	3.4	Indoor Environment	64) Are trends in health complaints monitored especially in timing and location of complaints?			4		X	X	X	X	
3	3.3	Indoor Environment	65) Has a regular schedule been established for inspecting roofs, ceilings, walls, floors, bathrooms and carpeting for water leakage, stains/ discoloration, odours and mold growth?			5		X	X	X	X	**X**
3	3.3	Indoor Environment	66) Are water leaks fixed to prevent mold growth?			5		X	X	X	X	
3	3.3	Indoor	67) Are showers and moisture generating sources			5		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		Environment	vented to the outside?									
3	3.3	Indoor Environment	68) Are building material such as wood, insulation, paper and fabric kept dry?			4		X	X	X	X	
3	3.3	Indoor Environment	69) Is adequate ventilation provided to maintain comfortable indoor temperature and humidity levels?			5		X	X	X	X	
3	3.6	Indoor Environment	70) Are exhaust fans used in cooking and food preparation areas?			3		X	X	X	X	
3	3.3	Indoor Environment	71) Is standing water eliminated from ventilation systems, air conditioners or refrigerator pans?			4		X	X	X	X	
3	3.3	Indoor Environment	72) Has carpeting been eliminated in areas where there is a perpetual moisture problem and as per manufacturers/suppliers recommendations?			4		X	X	X	X	
3	3.2	Indoor Environment	73) Are chemicals stored and labelled properly to avoid spills and contamination?			5		X	X	X	X	**X**
3	3.2	Indoor Environment	74) Are oil cans, paint cans and other liquid materials stored in drip pans or trays to catch leaks and spills?			3		X	X	X	X	
3	3.2	Indoor Environment	75) Are stored chemicals periodically inspected for signs of leakage, rusting, peeled labels, poor storage practices and other problems?			4		X	X	X	X	
3	3.1	Indoor Environment	76) Are lids available on all containers with chemicals to reduce evaporation?			4		X	X	X	X	
3	3.2	Indoor Environment	77) Are containers stacked in a way to minimize overturning, puncturing or breaking?			3		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**76**						
POINTS ACHEIVED												
4	4.1	Hazardous	78) Are volatile and hazardous liquids stored in			5		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		chemicals and Materials	sealed containers?									
4	4.1	Hazardous Chemicals and Materials	79) Is a chemical inventory kept up to date to eliminate over purchasing and reduce disposal costs?			5				X	X	
4	4.2	Hazardous Chemicals and Materials	80) Are lab specimens purchased in non-formaldehyde preservatives, whenever possible?			4				X	X	
4	4.1	Hazardous Chemicals and Materials	81) Is expired material returned to suppliers for proper disposal?			3				X	X	
4	4.1	Hazardous Chemicals and Materials	82) Are spill and leak protection installed in chemical storerooms?			4		X	X	X	X	
4	4.1	Hazardous Chemicals and Materials	83) Has an inventory of mercury containing devices/equipment in science labs, maintenance areas, art rooms, nurse's office, home economic rooms and industrial art/metal shop areas been conducted?			5				X	X	**X**
4	4.1	Hazardous Chemicals and Materials	84) Are instruments/devices/equipment containing mercury properly labelled?			5				X	X	
4	4.1	Hazardous Chemicals and Materials	85) Are staffs trained in how to properly clean up mercury spills?			5				X	X	
4	4.1	Hazardous Chemicals and Materials	86) Are protocols established to manage, dispose of and recycle mercury?			5				X	X	
4	4.1	Hazardous	87) Are raw materials inspected upon receipt			5				X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		Chemicals and Materials	from suppliers?									
4	4.1	Hazardous Chemicals and Materials	88) Has the quantity of hazardous chemicals stored in the facility been reduced to a minimum and is there one central storage area designated?			4		X	X	X	X	
4	4.1	Hazardous Chemicals and Materials	89) Is chemical purchasing delegated to a single point of contact?			4		X	X	X	X	
4	4.2	Hazardous Chemicals and Materials	90) Has a safe management system for handling laboratory waste been established and implemented including appropriate labelling procedures?			5				X	X	
4	4.1	Hazardous Chemicals and Materials	91) Is a “first in, first out” policy in place for expendable material to keep them from becoming outdated/expiration?			5		X	X	X	X	
4	4.1	Hazardous Chemicals and Materials	92) Are purchases checked to ensure that they have dates and legible labels?			4		X	X	X	X	
4	4.1	Hazardous Chemicals and Materials	93) Are materials dispensed using spigots, pumps and funnels?			3		X	X	X	X	
4	4.1	Hazardous Chemicals and Materials	94) Are containers checked regularly for corrosion and leaks?			4		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**75**						
POINTS ACHEIVED												
5	5.1	Facility and Grounds Management	95) Are ventilation systems maintained and cleaned regularly?			5		X	X	X	X	**X**

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
5	5.1	Facility and Grounds Management	96) Are rooms free of trash?			4		X	X	X	X	
5	5.1	Facility and Grounds Management	97) Are intakes and ventilating systems located away from areas where cars or buses idle?			4		X	X	X	X	
5	5.1	Facility and Grounds Management	98) Are bird or animal droppings eliminated from outdoor air intakes?			3		X	X	X	X	
5	5.1	Facility and Grounds Management	99) Are mats available to prevent pollutants and dirt from being tracked into the building?			4		X	X	X	X	
5	5.1	Facility and Grounds Management	100) Are construction work areas sealed off from occupied/used portions of the building/compound?			4		X	X	X	X	
5	5.1	Facility and Grounds Management	101) Is dust/debris generated from construction activities cleaned up promptly?			4		X	X	X	X	
5	5.1	Facility and Grounds Management	102) Are areas cleaned using dry methods whenever possible? e.g. sweeping/dusting/vacuuming			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	103) Are chemicals and hazardous waste disposed of separately?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	104) Are work areas kept clean and well organized?			4		X	X	X	X	
5	5.1	Facility and Grounds	105) If dumpsters and compactors are present, are they regularly inspected for spills?			4		X	X	X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		Maintenance										
5	5.1	Facility and Grounds Maintenance	106) Are waste disposal areas and recycled bins covered to avoid rainwater infiltration and rodents?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	107) Is good sanitation and proper maintenance practiced on structures and grounds?			5		X	X	X	X	**X**
5	5.1	Facility and Grounds Maintenance	108) Are cracks caulked and sealed to prevent pests from entering?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	109) Are lockers kept clean and dry?			3		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	110) Are structures and grounds monitored for signs of pests?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	111) Are appropriate pest management methods implemented which use preventative methods and low toxicity pesticides?			5		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	112) Is spraying done only when staff and children are out of school?			5		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	113) Is proper protective equipment/gear worn or used when products are applied?			5		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	114) Are pesticides stored on-site in leak proof containers in a secure place?			5		X	X	X	X	
5	5.1	Facility and	115) Is the landscape maintained on a regular			5		X	X	X	X	**X**

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
		Grounds Maintenance	basis?									
5	5.1	Facility and Grounds Maintenance	116) Are mower or grass cutters maintained?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	117) Are clippings composted or left on lawn areas?			3		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	118) Are local vegetative species used in landscaping?			5		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	119) Are trees/plants chosen that require minimal pruning?			4		X	X	X	X	
5	5.1	Facility and Grounds Maintenance	120) Does landscaping incorporate slow growing, drought tolerant native plants or groundcover that required less fertilizer and weed/pest control measures?			5		X	X	X	X	
MAXIMUM POINTS ACHIEVABLE						**113**						
POINTS ACHEIVED												
6	6.4	Food Service	121) Are refillable condiment bottles or containers used instead of single use packaging?			3			X	X	X	
6	6.2	Food Service	122) Are washable wiping clothes used instead of disposables?			4		X	X	X	X	
6	6.1	Food Service	123) Are procedures in place to properly dispose/compost food waste?			3		X	X	X	X	
6	6.2	Food Service	124) Are perishable stocks rotated to minimize wastage?			5				X	X	
6	6.2	Food Service	125) Are vegetables stored in reusable airtight			4				X	X	

Theme	Area	Green Section	Question	Answer (Yes/ No)	Comments	Weight	Score	Educational Institutional type (Early childhood, Primary, Secondary, tertiary)				Critical Standard
								N	1	2	3	
			containers to prevent spoilage?									
6	6.3	Food Service	126) Are large containers re-used for storage?			4		X	X	X	X	
6	6.4	Food Service	127) Are dispenser items such as juices used?			3		X	X	X	X	
6	6.2	Food Service	128) Is a routine cleaning and maintenance schedule in place for all equipment?			5		X	X	X	X	**X**
MAXIMUM POINTS ACHIEVABLE						**31**						
POINTS ACHEIVED												
					TOTAL MAXIMUM POINTS AVAILABLE	**534**						
					TOTAL POINTS ACHIEVED							
					TOTAL POINTS NEEDED FOR CERTIFICATION	**427**						

Table 5: Improvement Plan

RECOMMENDATION	TASK	RESPONSIBLE PARTY	FUNDS AVAILABLE	TIMEFRAME	RESULT
Example Only: Update Emergency/Disaster Plan	Improve Emergency/Disaster Plan	Principal and/or Safety Committee in collaboration with National Disaster Office and MOE		3-6 Months	Enhanced Emergency/Disaster Plan
Example Only: Repair gutters	Replace and or clean gutters	Maintenance Authority/contractor		1 Week	Improved drainage; improved rainwater capture

This table provides an action plan for making improvements to educational facilities based on the outcome of the School Safety Assessment tools. The Safety checklist has eight (8) sections, namely, Disaster Planning, Emergency Planning, Health and Safety Administration, Medical Emergencies, Physical Plant, Physical Safety, Protection of the Person and Hazardous Chemicals and Materials. The Safety Checklist primarily focuses on the functional/operational aspect of the facility. Areas to be improved can be determined by comparing the points attained to the points available. A large difference will mean that the school has fallen short in that particular area.

The Building Condition Assessment provides a way to access structural and non-structural aspects of the facility. The table is divided into four sections, namely Exterior building Elements, Interior building Elements, Mechanical Systems and Safety/Code Compliance. Areas to be improved can be determined by comparing the points attained to the points available. A large difference will mean that the school has fallen short in that particular area.

Overall, the questions and comments sections will reveal deficiencies that can guide retrofits/improvements.

Under Separate Cover

SECTION THREE:

EMERGENCY / DISASTER PLAN TEMPLATE

SECTION FOUR:

RESOURCES

List of Resources

101 Ways to Green your School
www.usgbc-mogate**way**.org/.../**101**+-**Ways-to-Green-Your-School**_13-0...

Gibbs, Tony, 1998. Disaster Preparedness Manual for Caribbean Schools

International Network for Education in Emergencies (INEE)
http://www.ineesite.org/en/minimum-standards

Safer School Construction Initiative
http://www.ineesite.org/en/disaster-risk-reduction/safer-schools

INEE Guidance Notes on Safer School Construction
http://www.ineesite.org/en/materials/inee-guidance-notes-on-safer-school-construction

INEE Toolkit
http://toolkit.ineesite.org/toolkit/Home.php

International Federation of Red Cross and Red Crescent Societies; Better Be Prepared: Protected Schools
http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1056/Better_Be_Prepared.pdf

International Finance Corporation; Disaster and Emergency Preparedness: Guidance for Schools
http://www.ifc.org/wps/wcm/connect/8b796b004970c0199a7ada336b93d75f/DisERHandbook.pdf?MOD=AJPERES

Maintenance Manual for School Buildings in the Caribbean
http://www.oas.org/CDMP/document/schools/maintman.htm

National Clearinghouse for Educational Facilities
http://www.ncef.org/rl/natural_disasters.cfm

The United Nations Office for Disaster Risk Reduction, Prevention Web; Manual on retrofitting of existing vulnerable school buildings - assessment to retrofitting
http://www.preventionweb.net/go/17195

Handbook of typical school design
http://www.preventionweb.net/english/professional/publications/v.php?id=17192

Disaster Prevention for Schools: Guidance for Education Sector Decision-Makers
http://www.preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=7344

Economic Commission for Latin America and the Caribbean, Disaster risk reduction in the education sector among selected Caribbean Small Island Developing States
http://www.cepal.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/0/38240/P38240.xml&xsl=/publicaciones/ficha-i.xsl&base=/publicaciones/top_publicaciones-i.xsl

Rutherford County Schools; policies
http://www.rcs.k12.tn.us/education/components/scrapbook/default.php?sectiondetailid=16984&linkid=nav-menu-container-4-23996

State of Minnesota Department of Public Safety, Homeland Security and Emergency Management; Comprehensive School Safety Guide
https://dps.mn.gov/divisions/sfm/Documents/2011ComprehensiveSchoolSafetyGuide.pdf

The World Bank; School-based Violence Prevention in Urban Communities in Latin America and the Caribbean
http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/EXTLACREGTOPURBDEV/0,,contentMDK:23154339~pagePK:34004173~piPK:34003707~theSitePK:841043,00.html

Unites Nations. Standard Rules on the Equalization of Opportunities for Persons with Disabilities.
http://www.un.org/esa/socdev/enable/dissre04.htm

United States Department of Justice, Civil Rights Division. American with Disabilities Act.
http://www.ada.gov/

United States Environmental Protection Agency; Healthy School Environmental Assessment Tool (SEAT)
http://www.epa.gov/schools/guidelinestools/healthySEAT/

United States Department of Education, Office of Safe and Drug Free Schools, 2008. A Guide to School Vulnerability Assessments: Key Principles for Safe Schools.
http://rems.ed.gov/docs/VA_Report_2008.pdf

United States Department of Health and Human Services; Stop Bullying
http://www.stopbullying.gov/prevention/at-school/

University of Kansas, Work Group for Community Health and Development, 2014. Tools for Changing our World. Changing the Physical and Social Environment;. Ensuring Access for People with Disabilities
http://ctb.ku.edu/en/table-of-contents/implement/phsyical-social-environment/housing-accessibility-disabilities/main

Green Schools
1+1=2
H2O
Safe Schools in the Caribbean
H2SO4
D2O
7×7=49
Safe Schools
Rock
O2