

CHAPTER ONE

SCHOOL SAFETY

Need for A Vision

There is an increasing concern the world over on the safety in schools. Schools house one of our most vulnerable groups of citizens- children between the ages of three to seventeen. So schools should draw up an action plan to ensure that the group is well equipped to meet any disaster or accident which might occur in the school premises. This training becomes all the more essential when we realize that the number of students is very large in most schools and should any untoward situation occur the loss in terms of lives would be staggering. Quick and effective management techniques are therefore necessary as a large number of schools stand exposed to major safety concerns.



The tragedy that occurred in a cinema hall at Delhi a few years ago, highlighted the management's negligence to various electrical and fire safety requirements. The fire caused by faulty electric wiring in a Haryana school during the annual function, was proof enough of the casual attitude and indifference of the authorities to safety concerns. The tragedy at a wedding pandal at Trichy, Tamil Nadu, raised many questions regarding the mode of licenses issued to schools. The nature of infrastructure available in schools and the modus operandi of granting recognition to schools. There are a large number of such cases countrywide.

WHERE IS THE RULE BOOK?

While many countries have specific rules and regulations with regard to school infrastructure, there is a lack of focus on defining school safety in the Indian environment. It is imperative that we come out with a Rule Book on School Safety before it is too late. The guidelines and rules provided therein be adopted, enforced and implemented by the Government and enforced, and implemented in letter and spirit in all the schools by all the stakeholders without any compromise.

Before we go into the types of rules and regulations necessary, and define the responsibility of who should do what, it is important to understand the types of risks involved in the schools and the reasons thereof. It is also desirable to refer and learn from the global experiences in the regard.

SCHOOL DISASTERS WORLDWIDE

Are tragedies such as the Kumbakonam tragedy exclusive to the Indian environment and Indian schools? No, they are certainly not exclusive to the Indian soil. Let us see some of the tragedies that have occurred in school plants in various countries of the world.

- ❖ In the Long Beach earthquake of 10 March 1933, 15 school buildings of Long Beach collapsed and 41 schools in Los Angeles were forced

to close. It was pure luck that the quake occurred at 5.54 p.m., after the school hours. Otherwise children would have been killed in thousands.

- ❖ A moderate earthquake struck southern Italy on 31 October 2002, when one large building in the hill village of San Giuliano di Puglia collapsed. It was a schoolhouse and 26 young children were crushed to death in the rubble. (Source: BBC News, 2 November 2002).
- ❖ On 16 November 1989, a wind gust at 12.05 p.m. blew down the free standing cafeteria wall at the East Coldenham Elementary School near Newburg, New York. Nine students were killed.
- ❖ On 21 April 1967, while high school students were boarding 16 buses already containing elementary school students at Belvedere High School in the US, a tornado over turned 12 of these buses and the students were “tossed like leaves” into adjacent fields.
- ❖ On 22 March 2002, a seven-storey school located on Corniche Mazraa a busy boulevard in Beirut, collapsed, showering chunks of concrete into the street.
- ❖ The roof of a high school gym in Cleaveland, Ohio, collapsed on 5 October 2000, when fortunately no one was in the gym. The entire roof of the East High School caved in and the floor of the gym, littered with parts of the roof was visible from a helicopter. (Source: CNN.com)
- ❖ On 8 December 2003, a historic downtown theatre at Toronto that was under demolition suddenly thundered to the ground at a neighbouring school. (Source: CNEWS, Canada).
- ❖ Three floors of the main building of the Summit Country Day School in Hyde Park collapsed on 18 January 2004. (Source: The Catholic Telegraph, the official newspaper of the Archdiocese of Cincinnati).
- ❖ On 6 March 2001 around 11 a.m., a blast occurred and destroyed a primary school building in Waizai country in east China’s Jiangxi

Province, killing 42 people and injuring 27. The accused Li Chuicai was suffering from a mental disease. (Source: People Daily.com).

- ❖ During the 1959 Hebgen Lake earthquake in the USA, the decorative stone entryway at the West Yellowstone Elementary School fell into a heap of rubble. (Source: www.ngde.noaa.gov/seg/hazard).
- ❖ On 27 March 1964, Government Hill Elementary School split into two and was virtually destroyed when the ground beneath slumped down. Fortunately, the school was closed due to Good Friday. (Source www.ngde.noaa.gov/seg/hazard).
- ❖ At Tangshan, China, in a devastating earthquake on 27 July 1976, the classroom and laboratory building at the Mining Institute collapsed, and 2000 students were killed in their dormitories. (www.ngde.noaa.gov/seg/hazard).
- ❖ In November 1999, 12 students and more than two dozen people were injured when a four-storey high pyramid of logs assembled for a bonfire collapsed due to faulty design at Texas A. (Source: <http://architecture.about.com>).
- ❖ On 21 March 2002, a dilapidated eight-storey school building collapsed in Beirut's commercial center, killing three construction workers. (Source: CNN.com/World).
- ❖ On the night of 24 July 2004, a suspicious fire gutted a number of classrooms and caused \$2 million damage at Toormina High School, on the New South Wales north coast.
- ❖ On 1 May 2003, a powerful earthquake demolished a four-storey school building in the city of Bingöl about 700 kilometers east of Ankara, and 150 children were trapped.
- ❖ Heavy snow brought down the roof of St, Josph Parish in Herndon, USA, which housed two storeys of offices, a kindergarten and elementary school on 10 February, 2004 .

THE OOPS! GENERATION

The list is endless. The observation of a critic on the above disaster at Texas is worth attention:

‘We live in the Oops Generation in which every tragedy is brushed aside with a crying session in front of the school by kids holding hands, parents frantically arranging funerals, school administrators making public statements that the matter will be investigated, and the public going to the next page to read celebrity gossip, and more tragedy and thinking nothing more of it. The only result is an Oops! Attitude.’

This is not exclusive to Texas, but a general attitude worldwide. Schools can be started anywhere. There are schools run in tents by the government, there are schools with thatched roofs, there are schools with semi-permanent structures, there are schools run by private Interests in dilapidated buildings, and there are schools run by vested commercial profiteers in crowded, unsafe buildings.

A few questions and thoughts that crop up on safety concerns in schools are given below:

- ❖ Who would certify that the land is fit for construction? Is the certificate from a local revenue agency good enough or does it need some technical validation?
- ❖ Is care taken that the soil is tested before construction commences? Are the observations of the soil testing agency taken cognizance of?
- ❖ Are there specific recommendations from any Statutory authority with regard to the nature and type of buildings for schools? Are these recommendations verified before certification by the technical agency?
- ❖ Is there a periodical follow-up to ensure that the permission for construction granted is adhered to? If violations are noticed, is action

taken, is the violation brought to the notice of the public and the stakeholders of the school?

- ❖ What are the various safety recommendations given to the school? Are they periodically checked?
- ❖ Should the powers for ensuring safety of school buildings be vested with Boards or Directorates of education? Or should there be a separate nodal agency monitoring safety concerns in schools?

Questions are infinite and answers are difficult to come by. Nevertheless, it should not forbid us from taking stock of the existing situation in school safety, which is dealt with in the subsequent chapters of this book.

The singular objective is to have a building where a school can be housed at the earliest.

Added to this, there are violations of all kinds. Entrepreneurs skilfully and imaginatively find ways and means of circumventing the rules and regulations laid down by the government.

A SAD REFLECTION

There are schools:

- ❖ Near riverbeds
- ❖ Near rail tracks
- ❖ Adjacent to hospitals treating communicable diseases
- ❖ Close to wine shops
- ❖ In densely polluted areas
- ❖ Who is to be blamed?

INDIFFERENCE TO BASICS: SCHOOLS ARE BUILT

- ❖ On marshy lands used for agriculture for countless years
- ❖ Without adequate soil testing
- ❖ In areas prone to earthquakes without support systems
- ❖ Converting residential premises or community centres
- ❖ The land identified and allotted by the revenue agency may be for a primary school building But one may see a huge senior secondary school cropping up there. No one knows how!
- ❖ The land identified and allotted by the revenue agency may be good enough just to house a school with a strength of 500 students, but the school will boast of a strength of 2000 or more!
- ❖ The land allotted would include the place for a building and a sports complex or land for games, but one would find the entire area covered by concrete buildings in just a couple of years.

CHAPTER TWO

LOCATION OF A SCHOOL

A school provides a cultural identity. The location of a school has a serious impact on the psyche of the students as they spend a reasonable amount of time during their formative years within the school premises. The school environment, the school building and its ambience have an impact on the learning process and attitudinal development of the learners.

CHARACTERISTICS OF A GOOD SCHOOL ENVIRONMENT

The school environment should be eco-friendly. The location should be free from air, water and noise pollution. It should not be pitched on sloppy terrains. The land identified for the school should be located in such an area which allows free movement of traffic. It should reflect the highest evolution of the civic sense of the people.

Some important points have to be kept in mind while identifying the location of a school. The schools should not be located, or situated near:

- ❖ Sea shores
- ❖ Banks of those rivers which flood frequently
- ❖ Train tracks
- ❖ Hospitals, especially those dealing with contagious and communicable diseases



- ❖ Main and busy markets where there is heavy and continuous traffic
- ❖ Bars/wine shops/slaughter houses
- ❖ Cinema houses
- ❖ High power electrical installations
- ❖ Factories causing pollution
- ❖ Chemical industries manufacturing poisonous chemicals of inflammable materials
- ❖ Sugar industries and distilleries dealing with molasses
- ❖ Burial ground and crematoriums.

It is important to note that the above are only a few suggestions to be noted for identification of locations for schools, as some of the locations indicated above are potential sources of hazards to the students for their physical, mental and emotional health.

NEED FOR PLANNING

The school management should set up schools only when the area adequately meets the needs specified for setting up a school as it has to be viewed not as a short-term business activity, but as a long-term social commitment. In the absence of adequate pre-planning, the organisers of the schools would find themselves in a tight corner at a later stage.

It may not be possible, at that stage, to find any alternative solutions to some initially avoidable problems.

THE ISSUE OF LAND

For normal day-school, covering the entire schooling process from the primary to senior school

level, it is estimated that the school should have a minimum of two acres of land. This alone would facilitate the wholesome activity of a school and provide the required moving space for



students. This extent of land should be good enough for a school for about 1500 students. Any increase in the number of students would warrant alternative arrangements, if the safety considerations of the school have to be kept in view.

How much of land is actually required for a school? It is worthwhile to examine the need for prescribing a 'minimum area of land' for each type of school, and then prescribing the per student work area. However, such a view would be more important for those schools which will be located in already densely populated areas where availability of land is a matter of concern. It is also important to note that the non-availability of land or the demand for more schools should at no cost compromise considerations of safety.

In an explosive urban situation, questions may arise as to where and how people would find this area of land. Consideration of the cost involved would also surface, as the cost of purchasing such an area would be well beyond the means of medium-sized entrepreneurs.

However, solutions are at hand, and both government and non-government agencies can do their bit.

Some possible solutions are:

- ❖ The government may consider providing the land to genuine educational agencies at a concessional and affordable price, with scope for long term payments if necessary.
- ❖ The government could give land with lesser area but restrict the schooling only to either primary, middle or secondary level. Offenders who violate the norms should be punished severely and their licenses withdrawn.
- ❖ In case of new colonies, institutional areas may be developed exclusively for educational complexes for better coordination.
- ❖ The government or other statutory agencies may restrict the number of candidates to be admitted to the school and school may be allowed to run on shifts.
- ❖ Possibilities of schools being run by corporate houses could be explored, with a specific incentive to tax on profits. They may run

schools in satellite towns and outskirts of cities, providing transport facilities to avoid density of schools within the city.

- ❖ Concessions could be given to the private sector to divert their profits to new Schools and provide tax relief. These schools could be role-model schools for quality and safety.
- ❖ Both the government and private sector could start schools on a joint venture with equity shares and mutual support, giving scope for equity as well as excellence.
- ❖ Such profit ventures would help in establishing schools where consideration of costs matter to medium-sized entrepreneurs.
- ❖ While granting licenses to housing societies, they may be allowed to run schools with partial support from the government which could be managed by a group of representatives of the housing societies.

It is possible to think of various other modes of managing schools which would facilitate all types of investors in school education, either as a private investor or as a community entrepreneur.

Moreover, local authorities should reconsider the issue of licenses and facilitate the relocation, wherever possible, of the commercial propositions set up in vital areas where schools are located, to adhere to safety regulations.

IDENTIFYING THE LOCATION OF A SCHOOL

While selecting locations for schools, it would be meaningful to consider the following issues:

- ❖ How far is the school located from the nearest hospital?
- ❖ How far is the school located from the nearest fire station?
- ❖ How far is the school located from the nearest bus station?

- ❖ How far is the school located from the nearest water supply system?
- ❖ Whether there is easy access to the school from the above places?
- ❖ Whether there is a road connectivity to the school from the above?

A brainstorming session on the above questions will help in taking vital decision about the school location, as there are the basic support systems that a school would require in the event of any emergency.

TECHNICAL CONSULTANCY

Having identified the location, it is important to seek opinion from technical experts on the following issues:

- ❖ Is the land identified safe for the construction of a school building?
- ❖ Is the soil strong enough for construction?
- ❖ Is the area quake-prone?
- ❖ What is the moisture level of the soil?
- ❖ What is the nature of the soil and what impact would it have on the foundation?
- ❖ Is the land located for the school has connectivity with the city drainage systems?
- ❖ What is the depth of water-table at that place?
- ❖ What is the nature of water, and is it potable?
- ❖ Would the water need treatment before it is put to use?
- ❖ What is the source of water supply to the school plant and how easy is the connectivity?
- ❖ Is there provision for adequate and continuous power supply to the school?

RECORD KEEPING

From a common man's point of view or from that of a technical expert, the above questions may appear too trivial to be answered. What is pathetic in the case of most of our system designs is that there is no record of the system designs and everything is left to common sense. In the event of any emergency, no records are available for consultation or verification. It is important that school authorities develop a flow - chart of things to be done. Each stage or event in the flow -chart has to be supported by a work - chart.

Once the documentation is made, it should be decided as to who will hold the copies of the documents and why. What is the duty allocated to them and what is the follow-up? Who will be the nodal coordinating persons and how frequently should they meet for consultation and stocktaking? Should such consultations be recorded? Should the details of the follow-up be recorded?

A WORD WITH THE COMMUNITY

It is important that decisions with regard to a school be taken with the assistance and support of technical experts. It may not be a bad idea to hold periodic consultations with the representatives of the local community about their vision and expectations from the school.

CHAPTER THREE

SAFETY CONCERNS

Features of School Buildings

Design of a school building demands a variety of inputs. The school building should not only have an impressive structure, but should have the following elements in it:

- ❖ A sense of comfort
- ❖ A sense of safety
- ❖ The aspect of eco-friendliness
- ❖ A blend of tradition and modernity
- ❖ A touch of aesthetics.



The vital areas associated with the school building that need to be examined in the context of the school safety are:

- ❖ Structure
- ❖ Roofing
- ❖ Exterior of the building
- ❖ Interior of the building
- ❖ School playground and other open areas.

Regarding the above, let us look closely at some of the critical points where in accidents happen and safety concerns need to be addressed.

The design and construction of a school building should depend on both present and future requirements. It is however, often seen that the growth potential of some schools is so heavy that the infrastructure planned and designed falls short of the requirements after five years or so of its construction. It would not be advisable for schools to go on an expansion plan without considering ground realities. It is, therefore, important to conceive a 'sustainable school design' and identify the 'limits to growth' in that campus. Any deviation from this might lead to serious issues in the holistic safety management of the school.

THE GENERAL STRUCTURE

The general structure of a school building - or any building - is made of beams, columns, structural walls, roof structure, floors, etc. The quality of construction is a significant factor in determining the vulnerability of the building to any possible accidents. Structural faults may not lead to an immediate visible safety concern, but they do lead to serious problems over a period of time.

Cracks at the joints and nearby plants due to the settling of beams and resultant stress on the walls is a quite common feature. Temperature

variations over a period of time may also lead to aberrations in the settling of the concrete and show minor cracks. Most of them may not be so alarming. Nevertheless, one should be able to distinguish between a structural safety concern and other minor defects. A professional validation of the construction work is necessary. The schools which are involved in new constructions and expansion of their structures should do a post-construction audit of the building through a team of professional experts.

Some issues that need special attention are:

- ❖ Warping in columns, beams, walls, floors and roof structure
- ❖ Rusting of metal components in the structure
- ❖ Rotting of wood in the structural components
- ❖ Protective covering in the roof structure.

THE SCHOOL FACADE OR THE FRONTAGE

The prime image of the school depends on the exterior wall of the school and its maintenance. It is always better to have an exterior wall that requires minimum maintenance, thereby fashioning a good look over a long period of time.



School authorities should look into the following aspects:

- ❖ Are the walls in good condition?
- ❖ Are they well painted or is the coat of paint peeling off?
- ❖ Have commercial notices been pasted on the wall?
- ❖ Is the exterior area around the school kept clean, free from debris?
- ❖ Is there stagnation of water and accumulation of garbage near the walls?

In the case the exterior walls made of stones that are fixed to the outer surface, it should be ensured that the stones are well glued to the walls. In the event of any defects in fixing them, the stones may fall apart and break loose, quite often injuring those standing or moving near the walls.

It is equally important to ensure that there is no water seepage in the walls which might erode the mortar, leading to gradual and eventual disintegration.

THE ENTRANCE

The school should exude a student-friendly atmosphere. The approach to a school should be broad and facilitate easy movement of both people and vehicles. The following has to be kept in mind while designing the approach to the school:

- ❖ Does the entrance to the school provide easy access to the students?
- ❖ Does the entrance provide easy access to the movement of vehicles?
- ❖ Does it permit heavy vehicles to move inside without any restriction? (For example, movement of fire engines within the school premises to manage any eventuality.)
- ❖ Are the entrance doors easily operational?

- ❖ Is the main entrance too close to the main road?
- ❖ Are there any provisions for easy closure of the gates in case of any attack from outside by unwanted elements?
- ❖ Is the main building of the school at least a hundred feet away from the main gates?
- ❖ Is the passage to the main entrance of the school well laid out?
- ❖ Are speed breakers raised to restrict fast movement of vehicles inside the campus?
- ❖ Is adequate parking space available near the entrance for parking vehicles during rush hours?
- ❖ Is the entrance broad enough for school buses to take the necessary turn while entering or leaving?
- ❖ Is the entrance broad enough to permit easy access to ambulance, fire - engines and other heavy vehicles to get in to meet any emergency or crisis?
- ❖ Are there any electric posts or other fixtures which would hinder vehicles with height from entering the premises?
- ❖ Is the entrance located in such a way that there won't be any water logging even when it rains moderately?
- ❖ Are there any electrical points in the pathways which might lead to electrical leaks in the event of rain or water logging?

It is important that the school provides a safe entry to the school premises. The planners should ensure a smooth pathway right up to the school. It is better to build pathways and driveways with cement or asphalt.

Pathways and driveways should be so designed that water logging does not happen. If the design is such that there is a possibility of flooding the pathway the driveway or the parking area, then necessary measures should be taken to adopt flood proofing techniques.

THE RECEPTION HALL

The school building should have a neat reception hall for parents and visitors. The reception hall should reflect the modular profile of the school and its vision and commitment, and ensure that there is no crowding at the reception. Stair cases should not converge near the reception hall; indeed staircases should be avoided near the main entrance.



Ideally a reception hall should:

- ❖ be spacious
- ❖ not have too many pieces of furniture
- ❖ not restrict free movement
- ❖ not have wooden partitions that would restrict free movement of people
- ❖ not have too many notice boards which would divert the attention of students and thus prevent free flow of people

- ❖ not have slippery floors
- ❖ not have too many flower pots

CLASSROOMS

Classrooms should be spacious enough to comfortably accommodate at least 40-45 students and also allow free movement.

Some desirable features in classrooms are:

- ❖ Adequate natural light
- ❖ Cross ventilation
- ❖ Wide windows
- ❖ Electrical connectivity
- ❖ Fans
- ❖ Facility for multimedia projection
- ❖ Special facilities made available (as listed in the PWD Act) to the challenged persons.



A classroom should be a safe place for the children to sit and study. Some factors that need attention are:

- ❖ Study furniture should not have sharp corners that might hurt students.
- ❖ The furniture should have enough leg room so that it doesn't hurt the students when they get up or move about
- ❖ The furniture should not be kept too close to ensure that students don't get hurt when they move across the room.
- ❖ It should be ensured that the electrical fittings in the classroom are safe and do not have loose wire connections.

- ❖ Fans should be fixed properly so that they don't fall off at any time.
- ❖ Control switches should be outside the classroom.
- ❖ The floor of the classroom must not be slippery
- ❖ Windows should have grills so that no outside elements can get inside
- ❖ To ensure structural safety pertaining to roof professionals must be called in for periodical inspection.
- ❖ The peeling of paint on roof and sometimes loosened mortar on the ceiling might not only present a shabby picture but also pose a safety hazard.

Sometimes classrooms are constructed with a platform upon which the teacher's table and chair are placed. In modern days, it is felt that such a separate platform brings about a psychological divide between the teacher and the students. Hence, it is advisable to have the teacher and students seated at the same level.

MAKESHIFT CLASSROOMS

Sometimes, makeshift classrooms are made to accommodate more students by dividing large halls with a wooden barrier. Such classrooms are not at all good for effective transaction of knowledge as sound is carried over from one room to another. It is also very often seen that the partitions provided are so cumbersome and ill arranged that in the event of an emergency, the students would not be able to move through the narrow openings. While arguments are made about the need for expansion of schools, it must be understood that every time we need not start with the experience of our structures dating over last five decades. Issues need to be examined in context, and decisions should be taken keeping in view the current requirements. With the support of advances in technology, it is possible to find a contemporary solution to a problem.

THATCHED ROOFS

In a large number of schools in semi-urban and rural areas, temporary structures are made with thatched roof. In some urban surroundings, classrooms are improvised on the open terrace with thatched roofs, very often to circumvent the restrictions on construction of structures in those places. Cases of such thatched roof structures catching fire are not uncommon. In spite of such potential danger, temporary provisions do exist with the blessings of authorities. Possibly, accidents that occur in such places are considered events in isolation, due to natural calamities or, other extraneous causes not realizing that in most cases it is sheer human indifference that is to be blamed.

These structures have to be examined from the following angles:

- ❖ Vulnerability to fire accidents
- ❖ Strength of structures
- ❖ Ability to withstand strong winds
- ❖ Capacity to withstand heavy rain.

Apart from above mentioned concerns, these structures also become victims to missile crackers burnt during festive seasons, and are also prone to fire accidents during extreme summer conditions due to presence of some inflammable material in the premises.

Minor earthquake may also have a serious impact on these temporary structures.

TRADITIONAL STRUCTURES

It is also important to note that sometimes local and traditional wisdom in construction of buildings has many important and noteworthy precepts which are normally not taken into consideration in the framework of

construction plans. For example, the type of structures that are built in rainy areas and earthquake-prone areas could be local environment friendly.

One should not assume that a pucca concrete structure would be the best possible answer across the continent. Local architecture, heritage and designs may be much more relevant and aesthetically appealing. They need to be accepted, just as they need to be contextualized in the safety requirements of the present day. It would be an excellent idea if the school construction harmonises the local heritage with modern requirements.

THE QUALITY OF CONSTRUCTION

The design of the building should ensure that:

- ❖ The foundation is well laid, keeping in view the present and future requirements.
- ❖ If the area in which the school is located comes under the earthquake zone, then suitable foundation should be laid.
- ❖ In respect of places where the soil could cause corrosion of the foundation material, necessary soil treatment needs to be undertaken.
- ❖ Though present day technical experts do give termite treatment to the soil, it must be ensured that it is undertaken before the construction begins.
- ❖ It is necessary that structural clearance is given by appropriate authorities for the earthquake security inputs in the foundations of the building.
- ❖ Construction should be made of BIS approved materials only. Certificates from local authorities should be obtained with regard to the quality of the construction.
- ❖ Specification given by the earthquake engineers for the support systems to the walls and ceilings to avoid heavy damages during the earthquakes need to be adhered to.

PRIMARY CLASSROOMS

It is worthwhile to keep the following points in mind while constructing a school:

- ❖ The classrooms for the students of the pre-primary and primary level are always on the ground floor.
- ❖ Such classrooms are eco-friendly, wherever possible with an access to a small playground directly from the classroom.
- ❖ Provision of a small amphitheatre for the students of lower classes adjacent to the classrooms could be designed.
- ❖ The classrooms for the primary classes do not have electrical points within easy reach, wherever such electrical points are present, necessary precautions should be taken to secure these points from children.



FACILITIES FOR THE PHYSICALLY CHALLENGED

Ramps should be provided at the entrance for use of the physically - challenged persons (This is an essential element of the PWD Act).

Physically - challenged students should be accommodated on the ground floor itself to facilitate them to integrate themselves with the mainstream.

SCHOOL STAIRCASES

The school staircases are often venues of accidents. It is important that necessary care is taken in the design and construction of staircases in schools. Some points that need attention in this regard are:

- ❖ Staircases should be located at convenient places where a number of students could assemble as well as disperse.
- ❖ Precautions should be taken to prevent crowding of students on the stair - cases at any point of time.
- ❖ Enough moving space should be available at these places to avoid stampede.
- ❖ The height difference between any two steps should be reasonable. It should facilitate comfortable climbing.
- ❖ The staircases should have landings to avoid extensive vertical movement.
- ❖ The landing should have adequate space for students to move about freely.
- ❖ The stairs should not be made of slippery material.
- ❖ There should be good, firm railing for support on either side of the stairs.
- ❖ There should be no spiral design staircases in schools.
- ❖ Flowerpots should not be kept on the stairs. Even at the elbow junctions, only one corner flower-pot may be kept, if absolutely necessary.



- ❖ Information or circulars should not be posted along the walls of the staircases.
- ❖ Notice boards should not be placed on the landings, as these will draw the attention of the students and may lead to a stampede. Neither should they be placed at the beginning or end points of the staircase.

Regular inspection should also be carried out to check whether there are any cracks on the staircases. If so, a professional team should be called to examine the cracks and remedial steps be taken.

LABORATORIES

As laboratories are potential places of accidents or disasters, necessary care needs to be given to several issues associated with the location, design and construction of the laboratories.

Normally schools have the following laboratories:

- ❖ Physics laboratory
- ❖ Chemistry laboratory
- ❖ Life Sciences laboratory
- ❖ Home Science laboratory
- ❖ Computer laboratory
- ❖ Mathematics laboratory



In addition to the above, a few schools have laboratories for languages, geography, psychology, and so on.

Laboratories should be ideally located on the ground floor. However, given the restrictions of space and other consideration, many educational institutions including those of higher learning do have laboratories on various floors of the institution.

Although various safety issues and concerns of the laboratories are discussed in detail later in the book, some basic issues may be considered at this stage.

CHEMISTRY LABORATORY

The laboratory has to be located on the ground floor as far as possible as many chemicals and inflammable materials are kept and handled here. The chemistry laboratory has to be designed carefully. There is a classical model of the chemistry laboratory for schools which is universally adopted.

The following points need to be taken note of:

- ❖ The laboratory should have adequate space, as provided for in the rules.
- ❖ There should be space for movement of students.
- ❖ Inflammable material must be kept in a separate place.
- ❖ There should be enough windows for sunlight and cross ventilation.
- ❖ Exhaust fans must be installed for expelling fumes.
- ❖ It is advisable to have a small exhaust chimney in a corner to expel fumes.
- ❖ Gas pipelines should be secure and safe.
- ❖ It is advisable to keep gas cylinders outside the reach of students.
- ❖ There should be a secure place for housing gas cylinders which should be operated only by authorised persons.



- ❖ The drainage should be designed to allow free flow of liquids without choking.
- ❖ Table tops should be acid resistant.
- ❖ The height of the work table should be so designed that it is comfortable for the students to work.
- ❖ There should be enough water points.
- ❖ There should be a separate store room.
- ❖ There should be separate work points preferable fume hoods while working involves polluting gases like hydrogen sulphide.

VENUE: GENOA—KINGSTON HIGH SCHOOL IN ILLINOIS

'An alcohol-fuelled fireball suddenly roared into their classroom during a routine science experiment October 2001 injuring seven students.'

-Craig Colgan on 'Lab accidents.'

'The accident at New Berlin West High School occurred during a demonstration in the school's auditorium in March 2001. The teacher mixed chloride and alcohol in several pie tins, when suddenly a flame shot 20 feet into the audience, burning the hair, faces, arms and clothes of four students.'

*-Lab Accidents: An Unintended
Consequence of Science—Craig Colgan*

Normal safety concerns in the chemistry laboratory are :

- ❖ Fire accidents
- ❖ Toxicity
- ❖ Inflammability
- ❖ Exposure to acids and chemicals

Potential Hazards must be carefully identified and steps taken to prevent their occurrence. Apart from prominently displaying safety codes in the laboratory, there should be competent and trained personnel who would handle any emergency with common sense and not give in to panic.

The following issues need to be examined:

- ❖ Do the students wear the prescribed lab coat?
- ❖ Are gas masks available in the lab for handling poisonous gases?
- ❖ Is first-aid readily available to the students?
- ❖ Is a fire-extinguisher in place?



- ❖ Are antidotes available for acid-burns?
- ❖ Are antidotes available for some common poisons to meet any crisis?

Teachers should be well trained to handle some common issues like:

- ❖ Heat burns

- ❖ Acid burns
- ❖ Irritation in the eyes due to fumes
- ❖ Inhalation of fumes and resultant breathlessness
- ❖ Evacuation procedures
- ❖ Accident recording procedures

CHECK LIST

- ❖ Exhaust fans
- ❖ Fire extinguishers
- ❖ Fume expeller chimney
- ❖ First aid kit
- ❖ Gas masks
- ❖ Emergency telephone numbers
- ❖ Labelling of 'flammables'
- ❖ Labelling of 'Toxic' material
- ❖ Labelling of 'Protected area.'

CLASSIFYING NON- FLAMMABILITY

- ❖ Materials that will not burn
- ❖ Materials that need to be pre-heated before ignition could occur
- ❖ Materials that need to be moderately heated or exposed to high ambient temperature ignition could occur.

CLASSIFYING FLAMMABILITY

- ❖ Liquids and solids that can be ignited under almost all ambient temperature conditions.
- ❖ Materials that would rapidly or completely vapourise at atmospheric pressure and normal ambient temperature.

Source: *NFPA Hazard Identification System,*
University of Oregon

PHYSICS LABORATORY

The safety considerations for a physics laboratory are somewhat different and less than those for a chemistry laboratory. While some general conditions are applicable to both laboratories, like light, space, ventilation, the size of the table, etc., electrical safety is an important safety issue for the physics laboratory. The design of electrical points, their access, their connectivity and their safety are some critical issues that need to be addressed.

Physics teachers should be familiar with:

- ❖ Managing an electrical fire
- ❖ Handling a case of electric shock
- ❖ Managing an electrical overloading
- ❖ Changing a fuse

They should know:

- ❖ The position of the electrical mains
- ❖ The position of the circuit breakers
- ❖ The vulnerable electrical leakage points
- ❖ The electrical circuit line

One other cause of accident or injury to students is the possibility of exposure to certain types of radiation as sometimes ultraviolet lamps, infra-red lamps or sodium vapour lamps are used. The possibility of any injury to the students' eyes by their continuous exposure has to be taken care of.

Some precautions to be taken:

- ❖ The instruments should be switched on only when required
- ❖ They should be switched off as soon as their use is over
- ❖ They should be switched on only with the knowledge and permission of the teachers



- ❖ The students must wear masks when required
- ❖ Continuous and long exposures are to be avoided
- ❖ No other student should be permitted to move into the areas where such radiations are used

LIFE SCIENCES LABORATORY

The life sciences laboratory always needs extra sunlight as many experiments are done using microscopes and therefore it should be designed in consultation with subject experts. Facilities for appropriate placing of microscopes in the direction of maximum sunlight have to be decided and worked out. This laboratory also requires an adequate supply of water.

Some of the hazards one could encounter in the life sciences laboratory are:

- ❖ Toxicity
- ❖ Allergy due to handling plants and animals
- ❖ Exposure to acids and chemicals.

Life science teachers should be familiar with:

- ❖ Fume management techniques
- ❖ Fire management techniques
- ❖ First-aid management methods

HOME SCIENCES LABORATORY

The home science laboratory is another place which requires thoughtful planning on safety issues as it involves extensive use of gas connections as well as electrical fittings. Care should be taken for housing gas cylinders safely. Electrical points should be kept at a reasonable distance from the wash basins or other sources of water.

Exhaust fans need to be provided for the laboratory.

Some common issues of safety concern are:

- ❖ Fire safety
- ❖ Electrical safety
- ❖ Toxicity
- ❖ Food poisoning
- ❖ Burns

COMPUTER LABORATORY

Computer laboratories have a high risk of electrical accidents. Electrical connection points along with the power sources must be doubly checked for their adequacy and availability. To ensure the safety of the system, adequate fuse and load-breakers have to be employed. In laboratories where there is provision for LAN and Server, special precautions need to be taken.



Air conditioning facilities are available in many computer laboratories. While calculating the load on the system, it is important to calculate the load during peak seasons also when all systems will simultaneously function. Computer laboratories have to be dust free. Hence, it may be relevant to consider their positioning either in the first or the second floor of the building and should not be located very close to the sports field from where a lot of sand and dust could come in. It is advisable to provide glass doors to the computer laboratories.

MATHEMATICS LABORATORY

Many schools also provide mathematics laboratories. Though special designs may not be necessary, it is good to design work tables which will provide adequate comfort level to the students to work on. Provisions also need to be made for display boards in the laboratory.

Teachers should take precautions while using:

- ❖ Sharp instruments
- ❖ Wooden sticks



LANGUAGE LABORATORY

Many schools have provision for a language laboratory. As the work in this laboratory is more individualistic and calls for adequate personal and committed attention on the part of the learners, it would be a good idea if individual tables are designed for the students. Provision of audio systems on each work table may be necessary.

This needs adequate planning for power supply points on the work tables. This area needs to be noise proof and therefore should be located away from play grounds and places from where a lot of noise control be caused due to frequent movement of students.



AUDIO-VISUAL ROOMS

Schools also have provision for audio-visual rooms. The design of the audio-visual room calls for special attention and hence multimedia experts should be consulted in designing of the room. It is important to test the echo level and the sound dissemination inside the room. The room has to be reasonably large with provision for a double door entry for students to hurry out in the event of any emergency; The positioning of the screen, the positioning of the viewers and the spacing visibility of the screen from different corners of the room have to be planned in advance. In recent days, many PowerPoint projections are made and audio-visual rooms are also used for staff training programmes. It is better to make provisions for LCD right in the beginning.

ART AND PAINTING DEPARTMENT

Many schools have art departments, which provide an aesthetic value. They should also provide the right ambience for students to enhance their imagination, creativity and flair for the subject. Schools could provide special wooden boards and tables for doing the work with ease.



MUSIC AND DANCE UNITS

Schools patronise music and dance. While designing the school, enough thought has to be exercised regarding the location and design of the music and dance rooms. In many schools, the dance rooms have wooden floors which add value to the ambience. The dance rooms should not have sharp corners or protruding walls or edges creatively designed. These could be located separately from the main building, wherever land is available. Similar arrangements could be made for the music classes. These rooms also have to be located in noise free locations.

PHYSICAL EDUCATION DEPARTMENT

Schools also have a room allotted for physical education and indoor games. Unfortunately, in many schools it looks more like a store room for appliances and sports goods. It is important to pay enough attention to these rooms. Students need to consider physical education and sports as a part of regular curricular



activity rather than some off -time activity. The ambience provided in the physical education department should facilitate this drive.

GYMNASIUM

There is an increasing awareness among schools for providing a gymnasium within the school premises. Many schools tend to keep the gymnasium in the basement of the school building, but ideally it should be located in a corner of the school playground where there will be more oxygen available to the students.

The managers of the gym equipments should take care of the following:

- ❖ Loose fixtures
- ❖ Crowding of sports hardware
- ❖ Slippery floors

Very often accidents happen because the instructors either do not guide the students to handle equipments properly or they do not use it effectively. They injure their neck, shoulder or back due to improper handling or movements. The physical education and gymnasium units should be able to handle:

- ❖ Fractures
- ❖ Physical injury due to falls
- ❖ Cramps

SWIMMING POOLS

Schools with adequate land may also provide swimming pools. Some schools provide separate swimming pools for younger and older students.

If a school decides to have a swimming pool, all possible precautions must be taken in its design and construction. Whether the issue relates to the

prescribed standards of the depth or whether it relates to periodic changing of water in the pools and its treatment, or whether it relates to providing safeguards for swimmers, or in appointing coach and lifeguards, the school should exercise utmost care. Location of bathrooms for a fresh water bath or change-over or shallow rooms for dressing calls for attention by architects.



Some preventive steps for pool safety are:

- ❖ Children should not be allowed alone near the pool or any water source.
- ❖ Children should not play around or near the swimming pool.
- ❖ Life-saving devices such as a pole or hook or floatation device should be within easy reach and readily available.
- ❖ Children should not be allowed to dive into unfamiliar or deep bodies of water.
- ❖ Children should not swim alone.
- ❖ Stretchers for carrying any injured person from the pool to the hospital should be kept readily available.

LIBRARY

The school library is the brain of the school's physiological system. Architects planning the school layout should think well about the design of the library and its location. It is important to decide whether there would be a single library for all the students or separate ones for the primary and for senior students.

The library should be spacious and facilitate adequate natural light. Books should be stacked and arranged in such a way that they are easily accessible. Long, wooden racks with a height of 10 feet or more are not suitable for school libraries. Apart from long tables where



a large number of students can sit side by side, space should be provided for individual study as well. The tables should also provide reading lamps.

Modern schools need to provide the student access to the vast resources of information provided by the internet and in form of CDs. As reading and referencing need adequate attention, the library needs to be located where the noise level is minimal.

As the library houses inflammable material, adequate safety precautions have to be taken regarding the storing and housing of reading material. It is equally important to consider the load factor on the building structure if the libraries are housed in second or third floors of the school.

The following questions need to be answered:

- ❖ Are there metal ladders available for use in the library?
- ❖ Are the ladders safe?
- ❖ Are fire-extinguishers available in the library?
- ❖ Are there trained personnel to handle fire accidents?
- ❖ Is there any possibility of electrical short-circuits?

- ❖ Is the librarian and personnel of the library aware of circuit breakers and their positioning?

The librarians should also take care of the following issues:

- ❖ Damage to racks and books due to water seepage on the walls
- ❖ Damage to books due to insects and termites.

THE SCHOOL TRANSPORT DEPARTMENT

This department has a lot of significance in school management system, especially in urban areas. A large number of schools either have their own or hired fleet of buses. The safety of the students while being transported to the school and back to their residence becomes the moral responsibility of school administration. It is important to have complete control over the transport department and the discipline of the fleet should be given top priority. A model code of conduct for staff and students using buses should be laid out and enforced.

The crew of the fleet should be well trained mature, responsible and aware of the traffic rules.



Most accidents in the school premises happen when the buses enter the campus or are in proximity of the campus. Accidents also occur when the buses are about to leave or during the return journey from the school. They need to be closely monitored. Transport safety rules must be widely circulated to all concerned including students and parents. They should also be displayed in the buses.

Many schools do not plan to house the buses inside the campus when they design the school building. It would be advisable to let the buses enter the campus through the back gates rather than through the main entrance.

CLINIC

The school should have a clinic with one or two beds, an efficient doctor and a nurse. Periodic visit of consultant doctors could also be arranged. The clinic should have basic facilities for treatment of minor injuries, cramps, sickness, nausea due to food poisoning or stomach disorders, etc. First-aid should be available for treatment of students injured while playing or while running around in the school during recess.

The nurse should be professionally qualified He/she should be in a position to manage any basic emergency. Facilities for coordination with nearest hospitals should exist. In co-educational schools, special care should be taken for counselling of girl students during onset of menarche.

The school clinic should have:

- ❖ One or two hospital beds
- ❖ A stretcher for carrying injured students
- ❖ A wheel chair
- ❖ Glucose and saline bottles
- ❖ Necessary infrastructure for ready availability of saline, glucose



- ❖ Oxygen cylinder
- ❖ Basic infrastructure to deal with injuries
- ❖ First-aid for fracture management
- ❖ Disposable sanitary napkins
- ❖ Basic medicines for treatment of common allergies due to insect bite, etc.

It would be of immense help if the school clinic has a complete database of the health profile of the students including their medical history and blood group.

While other details regarding the health issues in schools have been discussed in subsequent chapters, it is important to note that an entirely different strategy has to be adopted for residential schools where a full-time qualified doctor is necessary.

CANTEEN

Most schools have canteens. The immediate surrounding of the canteen must be neat and hygienic. No compromise should be made on the quality of food materials served therein. The principal should ensure that the canteen does not sell fast food, stale food and uncovered food. Sale of aerated drinks in schools should be avoided. Care should be taken that there are no gas cylinders located in the canteen and if present, the canteen managers should be familiar with fire-fighting techniques during emergencies. It is to ensure the safety of the food stocked and served in the canteen. Periodic checking in this area is mandatory.

Possible accidents in the school canteen are:

- ❖ Fire due to gas leakage
- ❖ Oil fires while heating

- ❖ Burns due to heat
- ❖ Burns caused by spilling hot water/hot oil
- ❖ Breathlessness due to gases
- ❖ Irritation to eyes due to gases
- ❖ Food poisoning due to adulterated material
- ❖ Nausea and stomach disorders due to food allergy.

Adequate care and expertise should be available to manage the above. If the canteens are licensed, then the Memorandum of Understanding with the contractors should include the possible hazards and their management, and the responsibility of the vendor.

SCHOOL OFFICE

The school office should be located in the main building, adjacent to the office of the principal. To facilitate smooth administration the school management can make the most of the state of the art technologies and methods of administration.

Crowding of the staff in the office for registering their attendance can be avoided through log-in procedures made available at the staff room itself . It is possible to scan the status of staff attendance through computer networks at set times of the day.

It is advisable for the school office to avoid large cash transactions. Most of these can be done with the assistance of banks. This would avoid the risks of theft and external threats to school premises.

PRINCIPAL'S OFFICE

The office of the principal should be on the ground floor close to the main entrance. This will help in exercising adequate control. The principal is the chief learning officer of the school apart from being an educational

administrator. This profile of the principal should be reflected in the ambience of the principal's office. A cozy room with excellent interior decoration is not required as it may create a distance between the principal and the staff members. Hence, it must reflect simplicity, respectability, maturity and manageability.

The principal being the central nodal figure of the school should have a deep concern for the safety of the school infrastructure, students and teachers. He or she should be familiar with those agencies which are required to deal with any emergency or crisis in the school. The principal should organise safety awareness programmes related to various issues of school safety with all stakeholders of the school community.

The principal should work in co-ordination with the District Disaster Management group and be familiar with community disaster management plans, as the schools may be called upon to play a key role during such occasions.

INFRASTRUCTURE AND SAFETY

Various safety measures should be adopted in schools, which relate to the basic school infrastructure, accessories associated with the school plant, the well-being of the students and teachers, issues related to transport, and issues related to accidents and disasters. It is important to create an awareness about these issues among all those concerned, and to draw a plan of action and develop a systemic response in the management of the relevant issues. Giving way to panic is the instinctive step during accidents and disasters, in most cases. This could be avoided by delegating and fixing responsibilities to some of the members of the school team. We will try to address some of these issues in detail in the next few chapters.

CHAPTER FOUR

SAFETY OF PRIMARY

School Students

The schools are expected to play a major role in ensuring the safety of the students, especially the primary school students. This is so because they are naive and young and can not look after their own safety.

MANAGING TRANSPORT

One of the most common problems faced by parents and schools is related to arranging suitable transport for the students.

Some problematic issues are:

- ❖ The punctuality of the school bus service
- ❖ Overcrowding of buses, where most children have to stand.

Lack of supervision of the students travelling in the bus may give rise to the following problems:

- ❖ The embarking and disembarking of students when not supervised may lead to indiscipline and confusion causing injuries to students
- ❖ The children rush towards the bus leading to chaos
- ❖ Some children fall asleep in the bus and do not get down at the specified stop. Many children take their hands or heads out of windows of moving bus resulting in serious accidents

Some precautions that schools could take in this regard are:

- ❖ All students should be given a photo-identity card which they should carry with them, and preferably pinned to their shirt.
- ❖ Parents should be given adequate information about the authorities to be contacted in case of a transport problem.
- ❖ The crew should be given adequate counselling about handling young children.
- ❖ Head count in the bus should take place frequently.
- ❖ Students of the primary classes should not be left alone at the bus-stop until they are fetched by the parents, guardians or authorised persons.
- ❖ If the school bus is delayed, parents should be informed in advance over the phone/sms.

EXPOSURE TO THE ELEMENTS OF WEATHER

Young children should not be made to stand for a long time whatever be the function. Exposure to unsafe weather conditions, like extreme heat may lead to sunstroke. During summer, students are likely to get dehydrated quickly.

Cases of students fainting, swooning during the assembly or other events is a common phenomenon in schools which can be avoided. Students should be made to remain seated till the situation warrants them to stand up. Exposure to cold and rainy weather is again to be avoided. During such seasons, schools should organise the programmes indoors rather than outside.

CLASSROOM ARRANGEMENTS

The seating plan for young students should be quite friendly and comfortable. Even now, in many schools across the country young children sit on the floor.

Such a situation is certainly not desirable. The seating arrangement has to be well planned. This issue has been discussed elsewhere in the book.

Some of the potential hazards to which young children are vulnerable are:

- ❖ The dust from the chalk is inhaled by the children or it gets into their eyes.
- ❖ At times, some teachers throw the wooden duster at the children which results in the children getting hurt, or even use sharp instruments to beat an errant student.
- ❖ In some schools, teachers slap the students or pull them hard by the ears which could result in the ear drums being affected.
- ❖ Pulling children by their hair or knocking their head against the wall is a primitive practice which could result in head injuries.
- ❖ Making students kneel inside / outside could affect them psychologically.
- ❖ An innocuous thing like a pencil could prove to be dangerous if it has a sharpened edge.

All these issues appear to be trivial, but there have been cases in which some of the above have severely affected young children. Students have to be handled with care. There have been occasions when small children have been denied the permission to relieve themselves even during an emergency. Such actions do not reflect the appreciation of discipline by the teacher, rather it shows the teacher in poor light as he or she has no understanding of child psychology. It would be advisable for schools to have a brain-storming session and draw up a safety action plan which is followed by all.

When, a student falls asleep in class regularly, it is important to find out the reasons:

- ❖ Is the child lacking in nutrition and is he/she weak?

- ❖ Is the child sick?
- ❖ Whether the child is mentally tired and is unable to be attentive.
- ❖ Whether the child is demotivated or suffering from learning disabilities.

IN THE PLAYROOMS

Selecting toys for students is a very important issue. A lot of care should be taken while selecting appropriate toys for the students.

They have to ensure that the:

- ❖ Toys are appropriate for the intended age group
- ❖ Toys do not have sharp edges
- ❖ Toys such as guns and knives which may give rise to negative tendencies be avoided
- ❖ Toys are not electrically operated.

Toys painted with harmful chemicals should be avoided as small children have a tendency to lick them. The chemicals present in them may cause some harm to the child, such as allergies and stomach disorders.

Toys with long plastic ropes should be avoided as the children might put the ropes around their neck while playing which might result in strangulation.

Cases of students putting plastic bags on their head and dying due to asphyxiation have been reported. The class teachers should ensure that such materials are not kept in the proximity of students. There have been a substantial number of cases where students have been rushed to the hospitals for the following reasons:

- ❖ Fall from staircases
- ❖ Slipping and falling while running

- ❖ Swallowing coins
- ❖ Swallowing marbles
- ❖ Swallowing pins
- ❖ Getting injured by cricket balls while playing or watching a cricket match.

As such cases are frequent, the teachers/school staff should be trained in giving first aid to injured children. Details of nearest hospitals where they can be taken during emergencies should be readily available.

A CASE STUDY

A few years back, a child had removed his shoes and kept them a side while playing in the school. Later, on wearing his shoes, he was stung by a scorpion, leading to his death.

This may be a stray incident. Yet, it teaches us a lesson. Whenever students are asked to remove their shoes, be it in the sports ground or elsewhere, they must check their shoes before wearing them.

Cases are also reported where:

- ❖ Students experience sudden breathlessness
- ❖ Students suffer sudden loss of hearing
- ❖ Students are overcome by sudden dizziness.

Sometimes, students have certain medical problems which are not intimated to the school authorities by parents. It is advisable that schools have a record of the medical history of the students.

Some case histories which could prove to be fatal for a child:

- ❖ Heart problems
- ❖ Asthma or chronic bronchitis

- ❖ Eosinophilia
- ❖ Kidney problems
- ❖ Problems in vision
- ❖ Phobia of any kind
- ❖ Allergy to certain medicines.

TOILETS AND URINALS FOR SMALL CHILDREN

Most schools tend to have the same pattern of toilets and urinals for senior and for primary children. However, it is important to realise that needs of the primary school and senior students differ, and therefore adequate provisions should be made.

Quite often the fittings at the bottom of the toilet doors are rusted. An unmindful movement of the students might injure them. It is important that rusted door are repaired or changed immediately. In some cases, rusted bolts results in students getting locked inside the toilet. Toilets should be cleaned frequently and kept hygienic, free from germs and bad odour.

KIDNAPPING OF STUDENTS

Kidnapping of school students is increasingly becoming a social menace. The target students are mostly:

- ❖ Wards of rich businessmen
- ❖ Wards of officials who have political rivals or local goons as rivals
- ❖ Wards of influential persons.

Schools have a role to play in ensuring the safety of students in such cases.

Some suggestions are:

- ❖ Keeping a strict vigil on the movement of the students.

- ❖ Taking special care when such students go on picnics or excursions organised by the school.
- ❖ Educating the school watch and ward staff on suspect movements around the school.
- ❖ To be specially careful when students change their mode of transport suddenly on a given day.
- ❖ Alerting parents when suspect movements around their wards is noticed.

There is no single preventive mechanism to avoid such occurrences. What would pay is continuous vigilance.

CASES OF MISSING CHILDREN

Many a time schools get reports of children who do not return home after the school is over. Though schools cannot be held responsible once the students leave the campus or are dropped at their respective destinations, schools would do well to create a consciousness among the children about the need for their safe movement.

Some basic instructions and training that would have to be given to the children are:

- ❖ Being able to tell their own name as well as their parent's name and writing them correctly.
- ❖ Being able to tell their correct address and writing them correctly.
- ❖ Being able to tell the correct telephone number of the house, if it is available (or mobile telephone number of the parents, if available).
- ❖ They should have a school diary which carries the above details.
- ❖ They should have an ID-card with them preferably with the above details printed on it.

- ❖ They should be able to tell the name of their school and the name of their class teacher.

The students should be advised to take the following steps if they ever get lost.

- ❖ Not to panic
- ❖ Not to approach any unknown person
- ❖ To seek help from the nearest police station
- ❖ To go to the nearest telephone booth and make a call to their parents
- ❖ Not to go to an isolated place but remain in a relatively busy place
- ❖ Not to sit or fall asleep in an unknown place.

CHAPTER FIVE

ACCIDENTS INVOLVING

Traffic in Schools

The school is a vibrant place, always buzzing with activity: Students are always full of energy, yearning to play, seeking to experiment and explore. They are continuously moving about in the school premises for one reason or the other. They run, jump and are involved in various activities without realising that some times this may cause an accident. The recent episode of a boy skidding on the railings of a staircase and falling from the third floor, to the ground floor, and sustaining grievous injuries, is a case in point. Such accidents are not too rare but are actually regular features in all schools. While no one can predict how accidents happen, it is possible to identify vital locations of the schools and environment where the probability of such accidents is high. It is important that the school authorities zero in on the accident-prone areas, take adequate preventive measures to ensure that accidents are avoided to a considerable extent.

Some factors which may cause serious accidents are given below :

- ❖ Heavy vehicle traffic
- ❖ Light vehicle traffic
- ❖ Manually driven vehicles
- ❖ Use of cycles
- ❖ Pedestrian traffic.

MANAGEMENT OF HEAVY VEHICLES

In recent years, a large number of accidents have been reported in the school premises and in its vicinity. They are often cases of students being run over by buses on the busy roads outside the schools. Tender lives are lost and any amount of compensation is inadequate to the loss incurred.

Schools should have a plan of action to meet these eventualities.

THE FLEET MANAGEMENT

The following questions need to be answered:

- ❖ Does the school have its own fleet of buses?
- ❖ What is the strength of the fleet?
- ❖ Does the school campus have enough space to park them? If not, where are they parked?
- ❖ Should the buses be allowed to park near the main gate?
- ❖ If the school buses are contracted, are the agencies reliable and responsible?

Do the vehicles have fitness certificates for their operation?

- ❖ Are the buses painted as per instructions?
- ❖ Do they carry the name of the school and other instructions as specified?
- ❖ Are the Motor Vehicles Act rules and regulations followed? What are the irregularities and why?
- ❖ Is the bus insured?
- ❖ Do the drivers have a license for heavy vehicle?
- ❖ Are they trained specifically for transporting small children? If not, what do the school or the concerned authorities propose to do?

PARKING AND EMBARKATION PROCEDURES

One of the major reasons for accidents is the huge convergence of people leading to chaos at the beginning and end of the school hours at the main gate. It is important that convergence of students and other people at these points be avoided. Some issues that need to be addressed with regard to this issue are:

Are the buses parked in normal order?

- ❖ Are they numbered so that the students can identify and locate them with ease?
- ❖ Is some escort or security available at the place while the students enter the buses?
- ❖ Is there a procedure to regulate the students while getting in?
- ❖ Are the steps in the bus comfortable for young students to step in? If they are too high, are there staff members to help the children get in?
- ❖ Are the number of students embarking counted?

Does the school bus have a hind door?

- ❖ Who is responsible for closing the door and giving the cue to the driver to start?
- ❖ Do the doors have latches so that students do not fall out of a running bus at any point?
- ❖ Who gives clearance to the bus while reversing or starting?
- ❖ What is the speed with which the bus moves into and away from the school at the main gates?



- ❖ Are there any security personnel providing traffic assistance to let the bus move out of the school premises without meeting with an accident while taking?

ON-ROAD MANAGEMENT

While on its route a school bus sometimes meets with an accident due to excessive speed or due to competition between the two buses of the same school or with those of a neighbouring school. It is important that the school management addresses itself to the following issues:

- ❖ Is the driver mature, emotionally balanced, and capable of managing the demands of the students?
- ❖ Is the driver committed and serious in his task?
- ❖ Does he have an accident-free track record?
- ❖ Do the bus windows have enough steel barriers to prevent students from putting out their hands or heads?
- ❖ Is it ensured that all students in the school bus are seated?
- ❖ Does the school bus have a speed governor?
- ❖ Is frequent checking made to ensure adherence to the prescribed speed limit?
- ❖ Is there a mechanism to ensure that the buses follow the lane rule and do not overtake?
- ❖ Is it ensured that the school bus is not overcrowded?
- ❖ Does the school bus have a first—aid box?

School buses should avoid playing music/songs as it could distract the students leading to accidents.

ROUTE MANAGEMENT

The following points deserve attention of the school authorities:

- ❖ The name of the school be painted on the school transport
- ❖ The transport personnel be in prescribed uniform with the badge of the school
- ❖ A route-plan and instructions on the management of the route be displayed in the bus.
- ❖ It is important to identify the following in the route followed by the school bus:
 - Railway crossing
 - Rivers, ponds
 - Bridges
 - Flyovers
 - Traffic signals
 - School zones
 - Hospital zones
 - Noise free zones.
- ❖ A road management guideline should be drawn for the benefit of the traffic staff.
- ❖ The school could have a traffic advisory club consisting of teachers, parents, crew, police and students.
- ❖ It is important to note the places that experience frequent traffic jams and how the crew could be helped to overcome their anxiety and stress to meet the time requirements of the school.

THE CREW MANAGEMENT

The crew should also be guided on how they should manage the trauma in the event of an accident.

The following telephone numbers should be made available to the transport crew:

- ❖ Police (Traffic)
- ❖ Hospitals (both government and the nearest prescribed private hospitals)
- ❖ Ambulance
- ❖ Fire services
- ❖ Trauma care units
- ❖ School transport department
- ❖ Principal and vice principal (both official, residential and mobile).

The crew should also be educated on how they should drive when they approach the following in their routes:

- ❖ Ambulance
- ❖ Fire engine
- ❖ VIP car movement
- ❖ Trucks loaded with chemicals
- ❖ Oil tankers
- ❖ Trucks heavily loaded with wood or agricultural materials (e.g. sugar cane)
- ❖ Trucks and tractors with trolleys.

COUNSELLING THE CREW

The crew should also be trained and counselled on:

- ❖ Distance management
- ❖ Time management
- ❖ Speed management
- ❖ Traffic management during unusual weather condition

- ❖ Panic management
- ❖ Public relations.

INFORMATION MANAGEMENT

As far as possible, schools should obtain prior information from the local police on the following and inform the traffic crew in advance:

- ❖ Bandh or closures in the locality
- ❖ Processions—political, religious or otherwise—on the route
- ❖ Traffic diversions, if any
- ❖ Possible delays due to road maintenance or other causes

It is always important to communicate to the parents the situation as early as possible, so that they do not unnecessarily worry or panic during such occasions. It is normally seen that after an accident parents tend to crowd in the school campus seeking information. Indeed, information should be made available to them through displays or through delegated officials so that they are duly comforted, and unpleasant situations are avoided.

LIGHT VEHICLES AND CAR TRAFFIC

A large number of students go to school in their own vehicles. Normally, these cars drop the students to the school and pick up after school hours. These vehicles, at times, become the cause of accidents. Hence, it is essential to regulate traffic at the main gate.

Some suggestions which could be considered are:

- ❖ If the school has two gates, one gate may be used by the cars or other vehicles while the other gate could be used by the pedestrians.
- ❖ Cars may be allowed to enter the school campus through the main gate only if it is reasonably wide.

- ❖ Cars, ideally, should be parked at least a few metres away from the main gate and the students can be asked to walk down to the school.
- ❖ If the road is rather narrow, it should be declared as one-way traffic.
- ❖ There should be separate lanes for cars, and a separate lane for rickshaws, cycles, etc., and the traffic flow should be well monitored.
- ❖ In the event of cars overtaking others, the owners of the vehicles should be identified and warned that such acts would be hazardous for their own as well as other children.
- ❖ Steps should be taken to control noise pollution caused by horns.
- ❖ The police authorities could be requested to impose a ban to regulate the entry of heavy vehicles in that direction at least during peak hours wherever possible.

Very often those who drive near the school campus lose their concentration due to the following

- ❖ Notice boards and banners displayed near the gate
- ❖ Distribution of leaflets, notices to students near the gate
- ❖ Audio advertisements near the gate
- ❖ Congregation of vendors selling various eatables and other commodities

Schools should initiate action against these to ensure safe movement of vehicles. They should seek the cooperation of the local authorities to redress the situations.

In many places, vans, cars, taxis and buses are hired to pick and drop students to schools. In many cases, they are the cause of serious concerns regarding the safety of the students. Any lapse on their part is often considered the responsibility of the schools and the schools are unnecessarily held responsible by the media and other agencies for non-regulation of the above.

Some causes for accidents in such cases are:

- ❖ Overcrowding of the vehicles. They at times carry double the prescribed number of students.
- ❖ Breakneck speed of the vehicles. These modes of transport do not have speed governors.
- ❖ Very often the drivers are not well trained and are not wary of possible accidents.
- ❖ These vehicles have to make several rounds during and after school hours. Hence, in a hurry the drivers drive rashly on the roads.
- ❖ The maintenance of many such vehicles is poor and they emit highly polluting gases.

There is a need to keep a check on these vehicles. Enforcement authorities should provide license to these vehicles for school transport subject to a few conditions. These conditions need to be monitored. Defaulter should be dealt with severely.

USE OF MANUALLY DRIVEN VEHICLES LIKE RICKSHAWS

In many towns and cities, rickshaws are normal modes of transport for a large number of students from middle class families. Many of these rickshaws however, are not safe enough for the children.

Some of the following present a potential hazard for the students:

- ❖ Rickshaws carry more number of children than they can accommodate.
- ❖ Students are seated on light and weak wooden planks in the front and at the back of the rickshaws from where they can either easily fall or be hit by other vehicles, causing severe accidents.
- ❖ Bags are hung on both sides of the rickshaws which may hit the adjacent vehicles.

There is a need to regulate the movement of rickshaws near the school campus. Needless to say, enforcement agencies should not allow rickshaws to carry more people than authorised.

The following regulations may be considered:

- ❖ Rickshaws to be parked at a certain distance from the main entrance of the school.
- ❖ Parents to be requested to keep a track on the mode of transport and its speed.

MOVEMENT OF SCOOTERS

In many schools, students come driving their own two-wheelers. Though the legal provisions do not allow license being issued to persons below the age of 18, there exist many instances of students of 13 or 14 years driving two wheelers.

Some major risks associated with young students driving on two-wheelers to school are :

- ❖ They often drive at high speed and rashly
- ❖ They tend to believe that indulging into reckless driving would help them in projecting a heroic image
- ❖ They do not wear helmets
- ❖ They drive with more than one pillion rider
- ❖ They get easily distracted while driving
- ❖ They do not obey traffic rules

All these and other reasons lead to accidents, causing injury either to the students or to others. Schools need to attend to the above issues with the great seriousness. Some actions that schools could take in this regard are:

- ❖ Ban the use of two-wheelers by students.
- ❖ If students continue to come to school on two-wheelers, the parents may be called for a discussion to bring home to them the seriousness of the above issue.
- ❖ Take the assistance of traffic police adjacent to the school to warn the students of the legal implications.

MOVEMENT OF CYCLES

Cycle is one of the most common and safest modes of transport used by students. However, certain safety measures must be kept in mind by the students as well as the school authorities so as to avoid accidents.

- ❖ Those cycling to school should be trained to follow the lanes meant for the purpose.
- ❖ The students should not race either with other cycles or with other modes of transport.
- ❖ The cycle riders should preferably use the school gate meant for pedestrians and not the one used by other vehicles, in case there exists two gates.
- ❖ Schools should have provision for a cycle stand.
- ❖ Students should be told to avoid pillion riding.
- ❖ Students should be trained to follow traffic rules strictly.
- ❖ Students should not cycle while eating or engaged in any other activity.

PEDESTRIAN CROSSING

The main gate of the school is always crowded with a large number of students and teachers walking in, at the beginning and end of the school

hours. Generally accidents occur when people cross the road to reach the school. This is because at this point people tend to hurry, and cross the road un mindful of the flow of vehicles.

- ❖ Given below are a few safety measures that can be adopted in this regard;
- ❖ There must be a traffic constable or a guard posted near the gate to monitor the flow of persons crossing the road.
- ❖ Volunteers may also be posted to regulate the movement of students.
- ❖ 'No Parking' signals should be posted near the main gate.
- ❖ 'No Horn' zones should be assigned near the school gate.
- ❖ The road could be closed for heavy vehicle traffic.
- ❖ Street vendors should not be allowed near the school gate.
- ❖ Posting of bills and banners near the gate should be banned.

SCHOOL INFRASTRUCTURE

Safety Issues

The Kumbakonam tragedy in Tamil Nadu recently has been an eye opener with regard to several safety issues concerning the school infrastructure. An incident was also reported in a school near Delhi where a student slipped through the staircase railing and fell, resulting in serious injury; If closely examined, there are several notable aspects with regard to the school infrastructure that are vulnerable to accidents and call for safety measures.

Accidents in schools may occur in any of the following areas.

- ❖ School furniture
- ❖ Staircases
- ❖ Doors, windows and other frames
- ❖ Playgrounds
- ❖ Swimming pools

ACCIDENTS INVOLVING SCHOOL FURNITURE

The design of school furniture calls for careful planning. Some points that have to be considered are:

- ❖ It should be appropriate for the intended age group.
- ❖ The height, the seat space, the leg room and space for keeping the books/bag need to be kept in mind.

- ❖ The type of material to be used for the furniture, like wood, plastic, etc., has to be decided keeping in view its durability as well as appropriateness.
- ❖ The edges of the furniture should not be sharp as children might get injured while moving or bending.
- ❖ The nails at the hinges or joints should be well hidden, and not crude and exposed.
- ❖ The placement of furniture in the classroom should provide adequate moving space for the students.
- ❖ It is advisable to place the furniture at least three feet away from the classroom door.
- ❖ The back rest should be comfortable so as to avoid strain on the spinal chord.
- ❖ The level of the chair should provide appropriate elevation to a particular age-group, for viewing the blackboard with ease, and to avoid strain on the neck.

Some accidents that frequently occur, involving the school furniture are:

- ❖ Close placement of furniture which cramps the space for children to move
- ❖ Protruding, sharp nails of the furniture often injure students
- ❖ Broken parts of wooden furniture may cause bruises and injuries.

A few suggestions for avoiding such instances:

- ❖ There should be a school maintenance team consisting of teachers and senior students for attending to the school furniture.
- ❖ Totally damaged, broken and unwanted furniture should be removed from classrooms.
- ❖ Furniture with protruding nails/broken wooden frames should be removed from the class-rooms for repair.

ACCIDENTS ON STAIRCASE

Numerous accidents occurring on school staircases have been reported. Schools need to look into the design of staircases very carefully and ensure the following:

- ❖ The staircases are not made of slippery material
- ❖ The staircases are wide enough
- ❖ The edges of the staircases are neither too sharp nor too blunt
- ❖ The railings are strong and comfortable
- ❖ The railings are not made of metals with sharp edges
- ❖ The railings are not rusted.

ACCIDENTS RELATED TO WINDOWS IN THE CLASSROOM

Some schools have windows without grills or mesh. These may pose a serious threat to the safety of the students in the classrooms. Therefore, the following must be ensured, not only to provide security to the students, but also to give comfort and proper ventilation.

- ❖ The windows should be positioned properly to allow free flow of air.
- ❖ Strong metal grills should be fixed to the windows so that any untoward activity by the students will not damage them, nor cause injury.
- ❖ The windows should have shutters, wooden or otherwise, to close/open whenever necessary.
- ❖ Windows should not be placed in-between two classrooms.
- ❖ The windows should be easily operable.
- ❖ If a window breaks, it should be immediately repaired and glass windows should be maintained properly.

ACCIDENTS RELATED TO DOORS

Doors may be the cause of accidents in certain cases:

- ❖ At times while opening the classroom doors, students hit their heads against them.
- ❖ Students often get their fingers trapped in the joints while closing the doors, either injuring or fracturing their fingers.

Some concerns to be kept in mind while designing doors for classrooms:

- ❖ The doors should be made of light material .
- ❖ The doors should be water proof .
- ❖ Small rubber stoppers should be affixed at the bottom.
- ❖ The latches/hinges should be strong but not sharp.
- ❖ The latches and hinges should not be rusted .
- ❖ A ventilator can be provided above the doors as an exit passage during emergencies.
- ❖ The doors of the toilets in the school should be maintained well.
- ❖ The doors providing access to the terrace should preferably kept closed.

SAFETY IN THE PLAYGROUND

The school playground is an area where chances of accidents are quite high. It is the responsibility of the school authorities to educate the students about the nature and possibilities of accidents they might encounter in a school playground. It is also their responsibility to take preventive steps so that the chances of accidents are reduced as far as possible.

- ❖ Play grounds are not maintained properly.



- ❖ The presence of pebbles, gravels, small stones and coarse sand in the playground may cause injury.
- ❖ Objects like nails, pins and other sharp edged materials present in the ground could cause injuries.
- ❖ Students do not wear helmets, and other accessories while playing games like cricket, hockey, etc.
- ❖ There is no provision for treatment of minor as well as major injuries.
- ❖ No safety instructions are made available to the students before and while they play.
- ❖ The students are allowed to play without supervision.

The teacher incharge must be cautious enough to take special care of children belonging to the following categories, while in the playground, as they are more prone to injuries:

- ❖ Visually impaired (fully or partially)
- ❖ Hearing impaired
- ❖ Physically challenged
- ❖ Students with coronary problems
- ❖ Students prone to epilepsy
- ❖ Students with asthmatic or chronic bronchial problems
- ❖ Students with depression and other psychological disorders.

The objective should not be to restrain these students from active participation in games, but to engage focus on the special needs of such children, and therefore help them to in 'normal' activities. It is also important to draw up a crisis management strategy and have a small group consisting of senior teachers or senior students to deal with unforeseen issues.

The schools should have an action plan to face the following situations:

- ❖ Chest pain while playing
- ❖ Breathing problems
- ❖ Physical injury while playing
- ❖ Fractures of limbs
- ❖ Eye injury.

Special attention needs to be given in the case of girl children. Young girls at the onset of menarche could be given proper counselling on the changes which their bodies are undergoing. Counselling is essential as it would clear up the myths which are associated with the menstrual cycle. They should also be made to understand that the entire process is completely normal and that they can participate in games and sports as well.

Swimming pools attract special attention regarding safety concerns. Some problems that could arise in the swimming pool:

- ❖ Feeling of nausea, after drinking the pool water
- ❖ Breathlessness
- ❖ Epileptics
- ❖ Rashes or skin allergy
- ❖ Convulsions

Teachers or instructors should be suitably equipped to meet any of the above mentioned situations.

The following steps could curtail any mishap to a considerable extent:

- ❖ Periodic clearing of pool water.
- ❖ Machinery for pumping out water should be serviced and readily available.
- ❖ The changing rooms must be well maintained.
- ❖ Adequate supply of fresh water in the changing rooms.
- ❖ The periphery of swimming pool must be clear.
- ❖ First aid units should be available close to swimming pools to meet any emergency.
- ❖ Stretchers should be available to take sick students from the venue to the clinic or outside.
- ❖ Chairs or seating provisions should be available near the swimming pool to rest the participants in case of any injury or emergency.
- ❖ Splash-pools should never be too close to the main swimming pools.
- ❖ Schools need to put display boards with warnings and guidelines to instruct the students not to operate electrical switches with wet hands.

It is important that schools have a school accident management plan in place. There should be a committee to examine the hazardous areas and bring it to the notice of the people concerned both for prevention and mitigation.

CHAPTER SEVEN

HEALTH SAFETY

In Schools

Health is a social responsibility, and as social institutions schools need to bring about health awareness, health consciousness and a sense of well-being among the students. It cannot be taught only through textual materials but should be inculcated in the young minds through good practices.

Some issues we will discuss in this chapter are:

- ❖ Maintenance of the school exterior
- ❖ Maintenance of the school interior
- ❖ Maintenance of toilets and gutters
- ❖ Issues related to food safety
- ❖ Management of epidemics in school
- ❖ Issues related to the health of the physically challenged
- ❖ Health of the girl child
- ❖ Adolescent issues and health
- ❖ Mental hygiene and schools

MAINTENANCE OF SCHOOL EXTERIOR

Schools are the torch bearers in setting examples for the community in general and the young impressionable minds in particular. The schools

should develop systems and practices to maintain the exterior. The following points deserve attention:

- ❖ Are the school compound walls sturdy and strong?
- ❖ Are posters pasted on the compound walls and how could this be stopped?
- ❖ Is there water logging outside the campus of the school?
- ❖ Are there ponds or pool of water in adjacent areas that encourage mosquito breeding?
- ❖ Are there urinals or toilets adjoining the school walls, and are they well maintained?
- ❖ What is the amount of 'waste' dumped outside the school, both by the school as well as by others?
- ❖ What is the removal mechanism and whether it is in place?
- ❖ Are there open lands close to the compound walls where the possibility of mosquito and insect breeding exists?
- ❖ Are there open agricultural lands nearby from which animals and insects could wander into the school?
- ❖ What are the possibilities of snakes, scorpions and creatures like mongoose, bandicoots and rats getting into the premises and how that can be prevented?
- ❖ Is there frequent spraying of insecticides, pesticides and other chemicals in the nearby agricultural lands, and are they likely to be carried over by the wind to the school community?
- ❖ Are there any hospitals close to the building, and what are the possibilities of aerial transmission of communicable diseases from them?
- ❖ Are there hospitals which deal with communicable and epidemic diseases nearby? What is the short-term and long term impact on the school?

- ❖ Are hospital wastes dumped anywhere near the school and are steps taken to prevent them?
- ❖ Are there any factories nearby and are the industrial wastes dumped near the school?
- ❖ What are the possibilities of air pollution due to the factories and what steps are taken to protect the students from the gases from leakages in the nearby factories?

There are several campus related issues which could have a direct impact on the health of the students. The school authorities must draw up a comprehensive community health plan for the students of the school. It may be managed by a small team comprising:

- ❖ The school principal
- ❖ A member of the school management
- ❖ Two teachers
- ❖ Two parents
- ❖ Two students
- ❖ The school doctor
- ❖ A medical expert
- ❖ An environmentalist
- ❖ A representative of the industry/hospital (if located nearby)
- ❖ The health officer of the local government.

The group should meet at least once in three months and take stock of the prevailing situation and chalk out remedial measures accordingly. The implementation of the recommendations should be reviewed periodically.

In the event of potential hazards to students' health, it would be appropriate to bring it to the attention of local authorities and the government for necessary action.

MANAGEMENT OF THE SCHOOL INTERIOR

Several health concerns exist within the school premises. Usually they are neglected or authorities turn a blind eye to them for obvious reasons. We need to address some of these issues.

DRINKING WATER MANAGEMENT

Many schools have inadequate provision for safe drinking water. This can pose a major threat to the health and safety of the students.

Following points need to be addressed

- ❖ The source and purity of drinking water
- ❖ The level of the water table if water comes from an underground source
- ❖ The ground water source should be tested for its suitability.
- ❖ Water tanks to be covered to prevent external contamination
- ❖ The tanks should be cleaned at regular intervals
- ❖ The containers to which the water is transferred for drinking should be clean
- ❖ The school should ensure that the water it receives for drinking is treated by government agencies and chlorinated. The school should also ensure that:
- ❖ Access to potable water exists
- ❖ Potable water does not have any forbidden ingredients
- ❖ Potable water is filtered and provided to the students
- ❖ Potable water containers are not kept close to toilets and washing areas
- ❖ There is no accumulation of water on the ground near the potable source.

Normally, water-borne diseases occur either during the rainy season or after floods. Common water-borne diseases include diarrhoea, typhoid, jaundice, etc.

Hence, to combat such diseases schools should have a plan in place for educating the students and the community on the need for clean and safe water for drinking purposes.

In many schools, water coolers are used to provide water to the students. It is important to ensure that the water coolers are frequently cleaned. It will be a good idea if the schools display their water safety certificate in a prominent place in the school. Such a certificate should be obtained half yearly. Nevertheless, there is need for periodic checking, at least once a week.

In moments of crisis or when possibilities of water-borne diseases exist, the school may advise students to bring their own water which is boiled and filtered. This will reduce the burden of supplying potable water to the students. However, it must be ensured that it should not be an exercise in passing the buck. No student shall, moreover, be punished for not complying with the directions as it is the fundamental duty of the school to provide safe water to its students.

CLASSROOM MAINTENANCE

The classroom must be maintained and kept neat and clean. Waste paper bins must be kept in the corners and students should be trained to make good use of them.

One of the concerns in the classroom is the presence of chalk powder near the blackboard. Very often, strong winds carry chalk dust and students end up inhaling it. This may cause breathing difficulties to students suffering from asthma and lung problems. It may also get into the eyes of the students. So

the schools must ensure that there is no accumulation of chalk powder near the blackboard.

MAINTENANCE OF TOILETS

In a large number of schools, the school toilets present a pathetic picture. This is because the authorities concerned do not feel that the maintenance of toilets an essential requirement.

Some basic problems related to toilets in schools are:

- ❖ Inadequate toilets in proportion to the number of students
- ❖ Toilets for girls fall far short of the actual need
- ❖ The urinals are ill maintained
- ❖ Inadequate supply of water in the toilets
- ❖ Use of phenyl and other detergents is inadequate
- ❖ In many places the area adjoining toilets emit a foul smell.

Toilets need to be cleaned and inspected regularly.

MAINTENANCE OF GUTTERS/DRAINAGE

Though open drains are not seen in the premises of urban schools, the sight is not uncommon in rural areas. They often get clogged due to:

- ❖ Leaves
- ❖ Debris
- ❖ Silt

Gutters/drains must be thoroughly and regularly cleaned to permit free flow of the waste water. It is also important to keep them covered to prevent mosquito breeding. During the rainy season, the drains get clogged. Preventive measures should be taken by the school before the onset of

the season. While designing the drainage lines, it must be ensured that the drain brackets are accessible for cleaning and that the drains are sloped at an appropriate angle in the flow of water. The alignment of drains should also be proper.

ISSUES RELATED TO FOOD SAFETY

It is important to ensure that the food items consumed by the students in the school campus are hygienic.

The eating arrangement of the students depends on the school they attend.

- ❖ There are government schools which provide free midday meal to the students
- ❖ There are schools where the students bring their own food
- ❖ There are day-boarding schools where the food is served by the school itself
- ❖ There are schools which have canteen facilities
- ❖ There are residential schools with hostel facilities.

GOVERNMENT MIDDAY MEAL SCHEME

In a commendable endeavour, the government has taken upon itself the responsibility of providing nutritious meals to students in the schools run by it. The entire responsibility is delegated to various sub-units at the village/ taluk level to maintain supervision and continuity of the process.

The quality and quantity of food served therein is overseen by nutrition experts appointed by the government and possibly by a community team.

The people concerned with quality could keep the following under focus:

- ❖ Cleanliness of the kitchen and the utensils used
- ❖ The health and hygiene of workers involved in cooking
- ❖ Standard procedures in the methods and processes adopted
- ❖ Periodic checking of the quality of the raw material as well as the products.
- ❖ The container of water used for covering.

FOOD BROUGHT BY STUDENTS

Schools should advise students and guardians on the type of food to be brought by the students. There are many schools which carry out effective supervision during the lunch break.

Advocacy programmes should be undertaken with the parents to ensure the following.

- ❖ The students are given a balanced, nutritious diet
- ❖ Vegetables and fruits form a part of their food
- ❖ Adequate quantity of water is consumed by them every day
- ❖ Junk food is discouraged
- ❖ A clean environment is provided for students to sit and have food
- ❖ Space is provided in the classrooms for keeping their food containers
- ❖ Adequate facilities for washing hands and faces are provided
- ❖ Adequate time is given to them for eating food.

FOOD SERVED IN CANTEENS

Canteens are the favourite haunts of most students. Hence, the authorities concerned should lay down stringent rules regarding the quality of food served in canteens.

The food served should be hygienic and safe for consumption. There should be a canteen committee that should look into the following;

- ❖ The quality of the raw material used
- ❖ The method of preparation
- ❖ The containers and the mode of delivery
- ❖ The packaging of food
- ❖ Junk food should not be catered
- ❖ Should ensure that items like chocolate which might have a detrimental effect on teeth are avoided,
- ❖ Bottled soft drinks to be avoided and replaced by natural drinks like tender coconut, and fruit juices.

Some health problems which students could face due to contaminated canteen food are:

- ❖ Problems of indigestion
- ❖ Hyperacidity
- ❖ Stomach pain
- ❖ Feeling of nausea
- ❖ Diarrhoea.



The school clinic should be adequately equipped to handle the above ailments with the attention they deserve.

MANAGEMENT OF EPIDEMICS IN SCHOOLS

During certain seasons, some diseases acquire an epidemic proportion. Even if only a few students get affected, it quickly assumes epidemic proportion if the authorities do not take enough precautions.

One of the common diseases normally seen during summer are chicken pox. and measles.

Students should be educated about how they must handle themselves during these attacks.

- ❖ The need for quarantine must be emphasised
- ❖ The need for bringing it to the attention of health authorities should be urged
- ❖ The utensils, bedspreads and other garments of those afflicted should be isolated and treated as per the prescribed hygiene procedures.

In a school environment students should be given medical leave and directed to undergo treatment. They should also be given time for convalescence. Due concessions should be given for their attendance if their attendance falls short.

In case a student contracts a highly contagious disease during the examinations, provisions do exist for helping him/her in the following manner:

- ❖ Provision of a separate room to appear in the exam
- ❖ Facility of an amanuensis
- ❖ Granting of extra time for completion of the paper.

SOME MEASURES TO BE TAKEN IN CASE OF INFECTIOUS DISEASES

- ❖ Even when a few cases are reported, preventive steps should be taken in the school for maintaining proper hygiene and cleanliness.
- ❖ Awareness should be spread among students so that they do not become victims to these diseases.
- ❖ School may consult the doctors and local health authorities for suggestion on preventive measures.

- ❖ Preventive measures should be printed and put up on the school notice board.
- ❖ Teachers could be asked to discuss preventive health care measures with their students.
- ❖ Special care must be taken by the school canteen staff with regard to the hygiene of the materials produced and supplied.
- ❖ Special care should be taken in case of primary class students.
- ❖ A list and records of affected students may be kept as a database.

There are cases of students affected by jaundice during examination time. They also could be given adequate support to enable them to take their examination. Similar provisions exist for students affected by typhoid and other infectious diseases.

Another ailment which normally affects a large number of students in the schools is conjunctivitis. It spreads quite fast among school students and hence the school must educate students on the preventive measures to check the spread of the disease. They could also be advised to stay away from school till they recover.

HEALTH OF THE PHYSICALLY CHALLENGED

The physically challenged students are as much a part of the society as anyone else. They really do not need the sympathy of people around them, but they do need understanding and appreciation of their constraints. They need help and concessions so that they get integrated with the student mainstream. The government has already enacted a bill in this regard which has to be implemented by all concerned.

Apart from the disabilities such students are also susceptible to other health hazards in the school environment. It is essential that the school authorities provide adequate understanding of their situation and provide necessary support.

Some important issues the schools need to address are:

- ❖ Provision of a ramp alongside the staircase for easy movement of the physically challenged.
- ❖ Classroom facilities as far as possible should be provided on the ground floor of the school.
- ❖ Separate toilet facilities with amenities as provided in the act.
- ❖ Academic and other concessions so that they do not feel inadequate or defeated.
- ❖ Necessary medical support in the school as required.
- ❖ Specialists may be consulted to help enhance their learning competence through appropriate pedagogy
- ❖ A stock of special medicines they may require in the school in case of any emergency.
- ❖ Provision of special support in the laboratory to do their practical work
- ❖ Capable teachers who would encourage them to participate in the co-scholastic activities like other students.



It is advisable to keep a record of their medical history so that any emergency concerning them is ably managed.

HEALTH OF THE GIRL CHILD

The schools should bear special responsibility with regard to the health of the girl children because in certain parts of the society they are largely neglected and uncared for. In certain cases, in a coeducational set-up, the

girl children in the adolescent age group might face some psychological inhibitions. One of them relates to their attainment of puberty; The school should have a team of trained teachers who would explain to them that attainment of puberty and the related physical and psychological changes that they undergo are a natural phenomenon and should not be treated as an ailment or a disorder.

The following points deserve attention:

- ❖ Pre and post puberty counselling
- ❖ Advice relating to minor related health problems like stomach pain. School authorities should also have counselling sessions with the mothers of girl children to help them in handling issues of adolescence and puberty.

ADOLESCENT ISSUES AND HEALTH

Presentally the students are exposed to a wide variety of temptations, emotional stresses and unhealthy practices. It is being emphasised the world over that schools should assume a moral responsibility and address these issues with great focus.

PREVENTING SMOKING

There is an increasing incidence of smoking among students at the school level. No amount of statutory warning administered would be adequate enough to mitigate the evils arising out of smoking. It is practised among students as a means of displaying heroism, exhibitionism, as an escape mechanism and as an outcome of peer pressure.

The school team, headed by the principal and the counsellor, should have brainstorming sessions, discussions and debates on relevant issues to increase the students' awareness on the dangers arising out of smoking. Unless the individual is convinced himself/herself, it will be difficult for him or her to get rid of this practice.

PREVENTING ALCOHOLISM

There is also an increasing incidence of consumption of alcohol among school students. This is usually a consequence of the modern day lifestyles and attitudes. Weekend parties, visits to bars during excursions and picnics, annual send-off functions in schools, birthday parties are all occasions where students may take to drinking.

There is a need to campaign against drinking among students. The schools could organise seminars, on the short term and long term effects of alcoholism on health. The relation between intoxication and crime rate should also be highlighted.

PREVENTION OF DRUGS

Across the world, nations are concerned about the increasing reports of drug abuse among children. Consumption of bhang (Cannabis), caffeine, methedrine, marijuana, and other drugs is increasing. Most often, the outlet for these seem to be the paan vendors or other shops situated close to the school. Stern, effective action from law enforcement authorities alone will help to mitigate the situation.

SEXUAL PRACTICES AMONG STUDENTS

Media reports seem to indicate increasing indulgence in unhealthy sexual activities among school students. The data is possibly supported by the statistics of STD and AIDS infections amongst the vulnerable group. The relevance of sex education for the students is being discussed and advocated by the educationists strongly in various forums.

What appears to be imperative is the urgency in counselling students. Each school should have a trained counsellor to handle such issues. Both individual and group counselling are important to generate opinions. The relevance of restraint and abstinence has to be emphasised as a strong input for good physical, emotional and biological health.

MENTAL HYGIENE

Mental hygiene of students is crucial for a healthy school environment in particular, and the society in general. All educational inputs must have a singular purpose—they should lead to the development of good mental hygiene for students to become confident, competent individuals contributing to social welfare.

A few steps that can be taken by the school in ensuring the mental development of students, and in moulding a better generation by advising students against:

- ❖ Aggressiveness and violence
- ❖ Eve-teasing
- ❖ Sex-crimes
- ❖ Social crimes
- ❖ Cyber crimes.

This can be brought about in the school by:

- ❖ Value inculcation
- ❖ Promoting self-esteem
- ❖ Promoting self-acceptance
- ❖ Promoting excellence
- ❖ Enabling self-actualisation.

School safety is not just steps taken by the school authority to ensure safe school infrastructure, but it is an attempt to develop among the future citizens, the right attitudes to life, work and to the society.

CHAPTER EIGHT

MANAGING ACCIDENTS

Outside The School

On several occasions, the school has to face unexpected situations when accidents occur outside the school involving students for which the schools are held responsible directly or indirectly.

Some of these are:

- ❖ Bus accidents while students are being ferried from their residence to school
- ❖ Accidents in the vehicles while students are out on a picnic or excursion
- ❖ Fire/explosions in buses on the move
- ❖ Attack on school buses during riots
- ❖ Boat tragedies when students are crossing rivers or on boat rides
- ❖ Drowning incidents in rivers/sea while students are on excursions
- ❖ Food poisoning while students are on tour/excursions.

Such accidents can happen in different localities, areas and different cities. Schools need to draw up a plan to avoid or cope with these unforeseen incidents.

THE USE OF BUSES

Before organising tours involving buses, the schools should check the following:

- ❖ Are the buses in good condition to travel long distances?
- ❖ Do the buses have necessary road licence?
- ❖ Have all the taxes for the buses been paid?
- ❖ Do the buses have permits to go on the prescribed routes?
- ❖ Have the buses been recently serviced?
- ❖ Do the drivers have an accident-free record?
- ❖ Are alternative drivers available for long journeys?
- ❖ What are the travel timings of the buses? Are any journeys planned during night?

ON-ROAD ACCIDENTS

The following should be kept in mind to contain the damages during a road accidents.

- ❖ What instructions are given to the drivers to report such accidents?
- ❖ Who is to be contacted immediately in case of an accident?
- ❖ Are the teachers in the buses responsible and capable enough to take decisions during such emergencies?
- ❖ Are the list of hospitals and their contact number on the route map available with the drivers/teachers in the buses?
- ❖ Do the teachers/drivers on the route have the telephone numbers of all the hospitals?
- ❖ What is the procedure for lodging an FIR on such occasions?
- ❖ Are the students insured against accidents while travelling on school buses?

ATTENDING TO AN ACCIDENT

In a bus accident, the school should have the following information before hand:

- ❖ The number of students in the bus at the time of the accident
- ❖ The number of students injured
- ❖ The number of fatal cases (if any)
- ❖ The number of students severely injured
- ❖ Details of injured students: Name, class, age group, residential address and telephone (specify injuries: e.g., head injuries, fractures—simple or multiple, burns.)
- ❖ List of uninjured students
- ❖ Number and names of staff involved in the accident.

The news of any accident involving their wards will naturally create panic among the parents. It is quite possible that parents of wards of other route buses would also assemble in the school to verify the safety of their wards. The situation needs to be handled adroitly to avoid chaos.

INFORMATION TO PARENTS

Schools should make available the following information to parents:

- ❖ The route number of the bus
- ❖ The actual route being covered
- ❖ The details of injured students
- ❖ The place/hospitals where they are being treated
- ❖ The location/telephone numbers of the hospitals.

PREPARING FOR TREKKING AND MOUNTAINEERING

If the schools plan to take the students for trekking or mountaineering, the schools should have the following information:

- ❖ Is the season in which the adventure trip is undertaken suitable for the activity?
- ❖ Are the students accompanied by a qualified mountaineering expert rather than the physical education teacher of the school who may not have adequate information?
- ❖ Are there students with heart ailments?
- ❖ Are there students who have suffered an earlier fracture? In such cases, ask student to get medical clearance from a registered doctor.
- ❖ Are there students with asthmatic or other allergic problems, who could be affected due to change in weather conditions?
- ❖ Do the students have adequate accessories like appropriate shoes, jackets and woolens as per the needs of the place?



DEALING WITH THE STUDENTS DURING AN EXCURSION

While on an excursion, the teachers must specially be sure of the following:

- ❖ That an undertaking is taken from the students/parents assuring disciplined behaviour.
- ❖ At least one teacher is available for every 10 students.
- ❖ Students are not allowed to go on their own without an escort or a teacher.

- ❖ Students are not allowed to go swimming either in a river or sea.
- ❖ Students are not allowed to go boating or rafting without an escort.
- ❖ The teachers should be adequately aware of the safety constraints in such an adventure.
- ❖ A headcount of the students should be carried out each time while embarking or disembarking from the bus.
- ❖ Students are not allowed to eat from street vendors.

COPING WITH WEATHER CONDITIONS

Schools should keep ready an advance plan for any sudden change in weather conditions, and take into account the following issues:

- ❖ How would they cope with a sudden change in weather condition?
- ❖ What would happen on slippery terrains in the event of rain or thunderstorm?
- ❖ What arrangements would be available for rescuing students in the event of a landslide?
- ❖ Where are shelters located for intermediary halts and how safe are they?
- ❖ What is the arrangement for first aid and medical attention on the way?
- ❖ Do all students have a route map and clear instructions to cope with any eventuality?
- ❖ Are facilities like oxygen cylinders available to the students in case of an emergency?
- ❖ What are the local contact points for communication during an unsafe condition?

TYPES OF ACCIDENTS

Several kinds of accidents during exercise and picnics may occur.

These are avoidable, provided adequate safety precautions are taken. However, in the event of such accidents, teachers usually face some moments of crisis which call for quick decisions. Some of these may deal with the following issues:

- ❖ What is to be done with the student who is injured.
- ❖ Whether he/she will complete the rest of the tour or should he/she be transported back to the starting point.
- ❖ If so, what strategies are to be adopted and who will accompany him/her.
- ❖ If any student is admitted in the hospital and has to be there for a few days, what would happen to the tour programme.
- ❖ Whether the tour will continue or should it be suspended.
- ❖ Who will take care of the admitted child during the period of hospitalisation awaiting the arrival of parents/guardian?

Though none of these eventualities may actually occur, it is important that a thorough brainstorming on these issues is undertaken as a part of routine school exercise so that competency in managing these issues is developed.

COPING WITH POISONING

Two major problems the participants may face during an excursion are:

- ❖ Food poisoning
- ❖ Infections through water

The school should check up the following

- ❖ What would be the menu during the picnic?

- ❖ Is the food served hygienic and fresh?
- ❖ Will the food remain fresh at the time of serving?
- ❖ Is the food served safe for the season?

The following should be avoided on a picnic:

- ❖ Raw food
- ❖ Spicy food
- ❖ Food with coloured additives
- ❖ Adulterated food
- ❖ Beverages stored over a long duration.

Some students tend to overeat during picnics or excursions and develop nausea, indigestion and stomach pain. Care must be taken to keep an eye on the eating pattern of students so that such problems are avoided.

Potable water is an important item to be taken care of during any picnic. Unsafe water will give rise to instantaneous problems leading to health hazards and may result in nausea, diarrhoea, stomach pain and other problems. The organising team should always take care of the following issues:

Very often, students tend to buy bottled water. It is quite possible that the bottled water also does not conform to the hygienic requirements if the water is bottled and sold by local agencies. The participants should exercise extra care in buying such bottled water. Similar care should be taken while buying soft drinks.

ORGANISING PROCESSIONS

Many schools organise student processions on various accounts. Some occasions during which such processions are organised are:

- ❖ Celebration of important national days
- ❖ Awareness programmes for the community
- ❖ Protest marches against some issues.

It may not be a sound proposition to involve students in processions during school hours. However, if for one reason or the other, such programmes are organised, schools need to take care of some basic issues:

- ❖ Do they have necessary permission for the procession?
- ❖ Is the route for the procession safe?
- ❖ Is there any need for the procession at all?
- ❖ Is the procession likely to provoke reactions from the community?
- ❖ Is the procession being led by a senior teacher and escorted by other teachers?
- ❖ Is there police protection for the procession?
- ❖ Is the student age group capable enough to participate in such an event?
- ❖ Are adequate medical facilities available to meet any emergency?
- ❖ What is the likely duration of the procession?
- ❖ Is drinking water available for students during the procession?
- ❖ Are the processionists likely to meet any person or delegation at the end?



PARTICIPATING IN PUBLIC FUNCTIONS

Many schools are invited to attend programmes organised for national events. These may be a part of displays, physical education exercises, march past or dance programmes. The rehearsal for such programmes take place for quite a number of days, and require the participation of a large number of students for a long period of time. Schools need to have a plan for management of such programmes so that students are not put into any physical or emotional inconvenience.

The following questions are worth answering:

- ❖ Who is organising the programme?
- ❖ What is the role of the school/students in such programmes?
- ❖ What is the likely duration of the programme on the actual day?
- ❖ Are the students expected to attend rehearsals, and if so for how many days?
- ❖ What is the likely duration of these rehearsals?
- ❖ Is the duration of the programme beyond the school hours, and if so what arrangements are to be made for the transport of the students back home?
- ❖ Who are the escorts and what is their role?
- ❖ What is the instruction given in writing to the teachers for the safety of the students?
- ❖ Is the weather good enough for the students?
- ❖ Is there any student who is medically unfit to participate in the programme?

REPORTING PROCEDURES

In case of accidents during such functions the teacher-incharge should immediately report to the nearest authority or police station. Teachers should be well trained on some social and legal issues so that they don't get unnerved at such times.

The teachers should know:

- ❖ How to draft a complaint
- ❖ What are the statement points to be put in
- ❖ The procedures for lodging a complaint
- ❖ What a First Information Report (FIR) is and what it signifies
- ❖ What to look for in an FIR when they obtain a copy of it.



CHAPTER NINE

DISASTER PREPAREDNESS

And Management In Schools

We have, in an earlier chapter, examined various types of disasters that have happened in schools. All over the world disasters have hit schools in one form or other. The 2004 tsunami washed away many schools in the island of Car Nicobar. The earthquake that preceded the tsumani damaged a part of a Tamil medium school in Mohanpura run by the Directorate of Education, A & N islands. A girls school in Aberdeen Bazaar of Port Blair was seriously affected when the sea water entered the school building, damaging the library, furniture and computer equipments.

Disasters can be classified based on the causative agent:

- ❖ Natural
- ❖ Man-made.

Another method of classification is based on duration:

- ❖ Short term
- ❖ Long term

Kuban (1992) classifies disasters in the following categories:

- ❖ Institution-specific
- ❖ System-wide



❖ Community-wide.

Disasters in schools can be of any of the three types listed above. Some examples of the above three categories are:

Institution-specific:

- ❖ Explosions
- ❖ Fires
- ❖ Shootings
- ❖ Hijacks.

System-wise:

- ❖ Floods
- ❖ Chemical pollution
- ❖ Epidemics
- ❖ Severe weather conditions.

Community-wise:

- ❖ Earthquakes
- ❖ Explosions
- ❖ Floods
- ❖ Chemical spillovers.

Various other types of disasters can also be listed which include snow-storms, tornadoes, volcanoes, missile attacks, etc. Apart from natural disasters, increasing threat of man-made disasters has made schools more vulnerable. Terrorist attacks, student-hijacking, hostage taking are some of the recent episodes that have come into limelight.

THE INITIAL RESPONSE

Schools should have a plan of action readily available to meet any emergency. Normally, when a disaster strikes, any organisation yields itself

to a high degree of disorientation. Key questions that remain in the minds of all concerned are 'What has happened? How did this happen?' 'What is the extent of damage?' What appears more important is the need to take control of the situation! So a more pertinent question would be: 'Who is the person in control?'

The immediate reaction to a disaster is the assembly and convergence of people all around the site of disaster resulting in a delay of the rescue work. The presence of the media usually exacerbates tempers, leading to more delay. Social and political overtones also tend to delay reconstruction efforts.

AT THE SITE OF THE DISASTER

The following points need to be noted at the site of any disaster:

- ❖ Don't cause congestion
- ❖ Don't block the road or access to the site
- ❖ Don't give information you are not aware of or sure of
- ❖ Give as much support to the authorised agencies as possible
- ❖ Provide relief to the victims as quickly as possible

Display information relating to:

- ❖ Hospitals
- ❖ Fire services
- ❖ Ambulance
- ❖ First aid
- ❖ Water sources
- ❖ Food sources

- ❖ Restrooms
- ❖ Accommodation
- ❖ Bus terminals
- ❖ Railway stations
- ❖ Route-maps to nearby towns.

When disasters strike at schools, the situation becomes more difficult, as the entire community gets concerned about the helpless young children. Anxious parents and their relatives, apart from the community well-wishers, gather to seek information. Therefore, schools need a lot of planning and exercise to manage such situations. Before studying how the schools could work out a plan of action, let us see how disasters leave their impact on schools.

NATURAL DISASTERS/BUILDING COLLAPSE

School buildings collapse due to a variety of reasons. They need not necessarily be an off-shoot of an earthquake. Cases of collapse of buildings situated close to rail tracks are not a new phenomenon. Fall of buildings due to heavy snow fall, and architectural or structural defects have also been brought to light. Such building collapses could be of two different kinds:

- ❖ The collapse could be in an 'explosive' manner, where the forces operate in an outward direction. In this case, the debris would be moving away from the vicinity of the collapse. In other words, we may say that the building gets 'scattered'.
- ❖ There could be a collapse in an 'implosive' manner. In this case, the density of the debris is more towards the building, and the interior weight-bearing structures lose their integrity and cave in.

These may result in:

- ❖ Death of pupils

- ❖ Temporary or permanent immobilisation of students or other workers
- ❖ Head injuries resulting in loss of memory
- ❖ Psychological disorders resulting from fear or trauma.

ASSESSING THE DAMAGE

The school management team should have the following information:

- ❖ Which building has collapsed?
- ❖ What extent of the building has collapsed?
- ❖ How many persons were in the area when the building collapsed?
- ❖ How many students could have been trapped in the collapsed part of the building and how can they be rescued?
- ❖ Who would be involved in such exercises and do they have the necessary expertise?
- ❖ Is there a possibility of a further collapse of the existing structure?
- ❖ Does the recovery mechanism need certain machinery to remove the debris and rescue the student?
- ❖ What is the first-aid to be made available?
- ❖ What arrangements should be done to provide drinking water and food to the injured?

A follow-up action would be to plan the following:

- ❖ What steps are to be taken to move students from the damage-prone areas to safer places?
- ❖ How can the damage-prone area be kept isolated/out of bounds?
- ❖ What notices are to be issued to ban the entry of persons to damage-prone areas?

A lot of planning and follow-up action is required by the school. We will discuss at a later part of this book how we could draft a plan of action for the school to meet such times of crisis.

EARTHQUAKES

History bears evidence that a large number of schools have succumbed to earthquakes. In view of the fact that schools are community centres with a large cross-section of the population, they should have a proper disaster management plan to act upon when the need arises. The young student populace are not mature enough and hence are more susceptible to panic and disorder. So, it is important that the school management be educated on the impact of such disasters and be prepared to deal with the same.

BASIC INFORMATION

The school authorities should have the following information at their disposal:

- ❖ Is the city/town/village where the school is located in an earthquake-prone zone?
- ❖ What is the category of the city with respect to disaster- vulnerability?
- ❖ Are the school buildings constructed in accordance with the norms prescribed by the authorities?
- ❖ If not, could any additional structural feature be added to enhance their safety from earthquakes?
- ❖ Is adequate open ground available to assemble the students in the event of any earthquake?
- ❖ Does the school have an earthquake disaster management plan in place?

- ❖ What is the source from which information regarding the earthquake and its magnitude could be ascertained?
- ❖ As every earthquake is normally accompanied by aftershocks, what steps should be taken to ensure the safety of the children from the same?

RESPONDING TO A CRISIS

The schools should have an earthquake evacuation plan ready keeping in mind the following questions:

- ❖ What is the first thing that teachers and students should do in case of an earthquake?
- ❖ Should the students be kept in the classroom or be evacuated?
- ❖ Is there a mass evacuation plan in place?
- ❖ Where should they assemble? What are the assembly points?
- ❖ Are students injured? How many and what are the type of injuries?
- ❖ Will there be a head-count and who will do it?
- ❖ Who will control the resources of the school till further orders?
- ❖ When and how will the students be sent home or to their parents?
- ❖ Who will ensure their safe handing over to parents?
- ❖ Who will ensure that the entire building is evacuated?

The management team should have excellent coordination. Students should be transported only when an 'all clear' signal is given by the person-in-charge. It is important to note that instructions should flow from the competent officer in a fixed direction. Multiple orders/instructions from many corners should be avoided as they might increase confusion and panic.

FLOOD

Schools located in the following areas are vulnerable to disasters arising out of floods:

- ❖ Near river beds
- ❖ In heavy rain fall zones
- ❖ In low lying areas
- ❖ In towns and cities with inadequate water drainage systems
- ❖ In mountainous areas/valleys where flash floods are common. Schools should be aware of the prevailing weather conditions and should be able to take preventive steps in order to avoid any exigencies.

Floods normally disrupt:

- ❖ Road transport
- ❖ Rail transport
- ❖ Food supply
- ❖ Communication systems
- ❖ Electricity.

PLAN OF ACTION

Schools must have a plan of action ready to address the following issues:

- ❖ What is the alternative mechanism for transporting the students safely to their homes?
- ❖ What is the alternative communication mode and how to access the same?
- ❖ How can multiple communication modes be set-up for easy transmission of information?

- ❖ What are the sources of electric supply? What should be done in the event of non-availability of electricity to meet any emergency?
- ❖ Are there points from where there is a possibility of leakage of electric current in the school? How can these points be identified and students prevented from access to such points?
- ❖ Could some temporary food supplies be made available to the students in the event of their being held up in the school and how can it be managed?

The post-flood scenario is equally important for the school for various reasons:

- ❖ Water source in the school can get contaminated
- ❖ There is a possibility of snakes and insects gathering around the school campus
- ❖ There is a possibility of outbreak of an epidemic
- ❖ Minor ailments might affect a large section of students. Steps need to be taken by the schools should such eventualities arise.

CYCLONES

Nowadays, cyclones are predicted well in advance by the meteorological departments and hence, safety measures can be adopted beforehand. Thus, there is every possibility of avoiding disasters involving school students in case of a cyclone. However, the damage to school property cannot be avoided.

The schools should be aware of:

- ❖ The normal periods of cyclones
- ❖ The direction of the cyclone
- ❖ The speed of wind.

WHAT ARE THE FALLOUTS OF A CYCLONE?

Normally the fallouts of a cyclone are:

- ❖ Blockade of roads due to fallen trees
- ❖ Damage to school buildings due to fallen trees or structures
- ❖ Thatched or asbestos roofs may get blown away
- ❖ Uprooting of trees and damage to electrical posts in the campus
- ❖ Communication system thrown out of gear because of uprooting of cable lines.

Apart from cyclones there is also danger of dust storms. Very often, dust storms occur during the day when students are seated in the school or while travelling. Schools could develop a list of do's and don'ts for students and transport operators in the event of a dust storm.

MAN-MADE DISASTER-FIRE ACCIDENTS

The Kumbakonam tragedy is not a case in isolation. Fire accidents in schools are quite a possibility due to several reasons. The north coast of New South Wales witnessed a big school fire accident on 25th July, 2004 resulting in damage to property Worth \$2 million.



CAUSES OF FIRE ACCIDENTS

Some of the reasons for fire in school premises may be:

- ❖ Electrical short-circuits
- ❖ Mishandling of inflammable chemicals in laboratories

- ❖ Explosion of gas cylinders in laboratories, school canteens
- ❖ Improper management of storehouses containing paper and other inflammables
- ❖ Leakage of petrol/diesel from vehicles which may catch fire.



There may be other causes of fire accidents as well. It is important that the school has a competent fire safety unit which is well trained and responsive.

The first normal response to a fire is confusion and panic. It is important to note that response mechanisms to fire management have to be very quick and efficient. Schools must have a fire management team.

Management team in place which should include:

- ❖ Principal (convener)
- ❖ Two teacher representatives
- ❖ Physical education teacher (coordinator)
- ❖ Two representatives from the school administrative staff
- ❖ One member of the transport management team.

EMERGENCY INFORMATION

- ❖ Telephone nos. of:
 - Fire Station
 - School coordinator
 - Ambulance

- First-aid contact.
- ❖ Locations of:
 - Fire alarms
 - Fire extinguishers
 - Safety-equipments

PREVENTIVE MEASURES

Some points of attention for school management to control fire are:

- ❖ Does the school have a fire safety action plan ready?
- ❖ Have the potential fire-hazard areas been identified and can they be accessed?
- ❖ Does the school have enough fire extinguishers located at the right places?
- ❖ Are they accessible in terms of their locations?
- ❖ Is there an adequate supply of water for fire fighters to combat the fire with?

NEED FOR AN EVACUATION PLAN

In the event of an unexpected fire, the school fire-safety team should have a draft evacuation plan ready. This plan should indicate:

- ❖ Procedures for safe and expeditious evacuation
- ❖ Diagram of escape routes
- ❖ Exit points
- ❖ Assembly and evacuation points
- ❖ Action plan for evacuation of the physically challenged

- ❖ Identification of persons who would give clearance of evacuation in each floor or area
- ❖ Procedures for cordoning off the affected area
- ❖ Procedures for transferring the affected to nearby hospitals.

The school fire safety team should be given special training to fight fires from electric short circuit or any electrical installation. The first-aid team members should familiarise themselves in handling burns in the event of a fire. Immediate help could be vital in the mitigation of suffering. It will be a good idea if the school invites a burns specialist from a nearby hospital to learn the immediate response procedures in the event of burns so that the victim's life can be saved.

It is important for schools to train their students to respond rationally at the time of a fire. Periodic fire drills in schools would help in enhancing their response level.

Some important instructions to be given to the students in the event of a fire are:

- ❖ Never panic
- ❖ Keep calm
- ❖ Don't run.
- ❖ Follow an order and move quickly
- ❖ Don't gather around the place of fire
- ❖ Don't stand or run on the staircases
- ❖ Move to assembly points already notified or towards the open space
- ❖ Don't move towards places where there is heavy smoke
- ❖ Make way for the younger students to move ahead
- ❖ Allow the physically challenged to be transported quickly

- ❖ Do not close the doors in the direction in which you are moving
- ❖ Keep away from electrical installations
- ❖ Don't stand in the way of fire engines and fire extinguishers
- ❖ Keep away from the laboratories
- ❖ Avoid using lifts in the school.

There could be other information as well that could be made available to students by the school. The school should get in touch with experts on fire safety and initiate necessary action.

INDUSTRIAL HAZARDS

The possibility of industrial leakages from factories located at the vicinity of school is a matter of great concern. The Bhopal tragedy is a case in point. If schools are located in an industrial area, leakage of various gases from nearby plants cannot be ruled out.

Some gases which are toxic and could be injurious to health are:

- ❖ Carbon dioxide
- ❖ Carbon monoxide
- ❖ Ammonia
- ❖ Chlorine
- ❖ Sulphur dioxide
- ❖ Hydrogen sulphide.

STEPS TO TAKE

- ❖ Identify the factories/manufacturing units near the school.
- ❖ Get a list/feedback of the chemicals/gases being used.
- ❖ Get information about the level of toxicity and inflammability of the gases emerging from these units.
- ❖ Get to know the safety precautions available in the plant.

- ❖ Discuss the strategies with the safety officers regarding possible leakages.
- ❖ Draw up a plan of action for the school to meet any crisis/emergency;
- ❖ Shut down the air conditioners to avoid circulation of the gases.
- ❖ Prevent the movement of students and staff towards the direction of leak in the event of the closure of the school.
- ❖ Have a list of do's and don'ts in the event of a leakage.
- ❖ Have a list of antidotes for the chemicals.
- ❖ Teach the students and the teachers simple first aid procedures to manage mild irritations due to gas pollution.

FOOD POISONING

Many cases of mass food poisoning of students have been reported from schools time and again. Some of the reasons for food poisoning could be:

- ❖ Adulteration in the food prepared in the canteen/kitchen of the hostel
- ❖ Contaminated water
- ❖ Storage of sweets or other eatables over a long time
- ❖ Consumption of beverages after the expiry date
- ❖ Unclean water tank or water coolers.

Schools have to be prepared to meet any eventuality arising out of such cases of food poisoning. An action plan would be a good idea to meet any crisis due to food poisoning.

STEPS TO TAKE

The schools should:

- ❖ Try to identify the source of the problem immediately.

- ❖ Assess the magnitude of the problem.
- ❖ Insulate the sources that would expand the scope of the problem.
- ❖ Get in touch with local hospital and health authorities.
- ❖ Brief the medical units of the local hospital and health authorities about the extent of the problem to prepare them beforehand.
- ❖ Get ready with first aid for immediate relief if possible.
- ❖ Provide a realistic report to the parents/community to avoid any panic situation.
- ❖ Prevent any possible rumour, as these sensationalise the incident.

In order to prevent any mishap due to food poisoning, schools should have a health inspection team to carry out the following duties:

- ❖ Periodic check-up of the quality of water and its containers.
- ❖ Regular check-up of school canteen for cleanliness and handling procedures.
- ❖ Inviting health inspectors for periodically checking and certifying food stuff made available in schools.
- ❖ Ensuring ban of sale of uncovered food stuff in and around the school campus.
- ❖ Ban on sale of junk food and bottled beverages in the school premises.

Food poisoning cases have immediate and very often fatal implications among young students. There have to be handled with the seriousness they demand.

SCHOOL SAFETY PLANS

School safety plans have become a necessity; Despite the precautions one takes, accidents still occur, but a school which has a well-laid out plan can curtail the damages to a considerable extent.

FEATURES OF A SCHOOL SAFETY PLAN

The school safety plan should have the following features:

- ❖ A vision statement of the school regarding its safety concerns.
- ❖ Comprehensively encompass all possibilities of hazards, accidents and disasters in a school.
- ❖ Indicate the multi-hazard management policy, response systems and route map for safety
- ❖ Indicate the plan, resources, flow chart and hierarchy of the management.
- ❖ Reflect the cost of safety management and provide allocations for safety funds in school budgets.
- ❖ Indicate the 'best practices' for school safety.
- ❖ Provide a manual of "do's: and "don'ts" for various safety concerns.
- ❖ Provide inputs for participation, awareness programmes and information dissemination to all the stakeholders.

- ❖ Form a school crisis management group with authority and powers for effective school safety, review and negotiations.
- ❖ Outline the network mechanisms for emergency and trauma management.
- ❖ Involve community sources for school safety audits and review.
- ❖ Be aware of the community disaster management systems so that there is a link between the thought-action systems of the school and the community

Based on the school safety plan, schools should draw a school facilities management plan. This becomes important in the context of the need for a regular and thorough check-up of the existing facilities.

SCHOOL FACILITIES AND THEIR MANAGEMENT

In order to address several safety concerns, schools should first take stock of the various facilities available in the school. It should analyse how these facilities are put into effective use. A data bank on the facilities, the schedules of the maintenance of these facilities and their management should be made available at all points of time.

What should a school facilities maintenance and management plan indicate?

- ❖ It should be in the form of a school policy document on its facility management.
- ❖ It should be a manual for reference to all concerned for understanding and verifying the extent of facilities and their maintenance.
- ❖ It should define the strategies for maintenance and supervision.
- ❖ It should provide the flow chart of the maintenance programme and pathways for removing the roadblocks in the maintenance.

- ❖ It should clearly state the responsibility and authority vested on various people who are incharge of the maintenance.
- ❖ It should indicate the budget allocation and sources for funding.
- ❖ It should also indicate alternative management procedures in the event of any designated source not being available.
- ❖ It should be made available to parents to appreciate the quantum of expenditure incurred on facility management and how they can support the programme.

Once the school facility management plan is ready and is available for implementation, the school authorities should constitute a committee for the same. The committee should have in its composition, apart from the members of the school management, representatives from parents, well-wishers and teachers. The involvement of the community gives a sense of synergy to the entire team for effective implementation of safety plans as and when required. The school facility maintenance management team should also ensure that teachers and students are trained in the process of facility maintenance and management.

TRAINING THE TEAM ON FACILITY MAINTENANCE AND MANAGEMENT

The training should include the following elements:

- ❖ Developing a sense of ownership for the programme
- ❖ Identifying the needs
- ❖ Identifying the priorities
- ❖ Collecting data on the facilities to help decision making
- ❖ Fostering consensus and developing a shared vision in the work procedures

- ❖ Involving stakeholders in the programme for active support
- ❖ Reviewing action plan and its implementation at regular intervals.

Some important components of the school safety plan are as follows:

- ❖ Fire drill
- ❖ Gas discharge response methods
- ❖ Response to explosions
- ❖ Response to thunderstorms/floods
- ❖ Response to cyclones
- ❖ Response to earthquakes
- ❖ Evacuation schemes
- ❖ First aid techniques
- ❖ Trauma management procedures.

FIRE DRILL

Fire drill should be an important activity of a school. It should be conducted periodically to keep the awareness and response level high.

The fire drill should include:

- ❖ Locating the position of the fire alarms
- ❖ Opening of the fire alarm boxes and operating the alarm
- ❖ Using a fire extinguisher
- ❖ Evacuation methods
- ❖ Understanding the assembly points
- ❖ Methods of dispersal.

The response modes may differ depending on the nature of the fire, which could be:

- ❖ Fire in school kitchen
- ❖ Fire in a classroom
- ❖ Fire in a laboratory
- ❖ Electrical short-circuit fires
- ❖ Fire in electrical transformers/mains
- ❖ Fire due to explosion of gas plants
- ❖ Fire in a moving vehicle
- ❖ Fire in inflammables stored in the school.

The facility maintenance team should periodically check various fire extinguishers and service points and ensure their fitness for use.

The following places must be checked periodically:

- ❖ Garbage collection points
- ❖ Gas joints/vents
- ❖ Compressed gas cylinders
- ❖ Stores with combustible materials.

It is advisable to note the following points:

- ❖ Have the students been briefed about the exit procedures?
- ❖ Are exit points clearly indicated?
- ❖ Are there special 'fire exits' and are they illuminated?
- ❖ Who will ensure the opening of fire exits and how?
- ❖ Are there any blocks for transit in the fire exit passages?

Who are the designated officials, floor-wise, to ensure swift and smooth evacuation?

The schools should have the following in place:

- ❖ Water buckets
- ❖ Sand buckets
- ❖ Fire extinguishers.

Fire safety concerns can be expressed through:

- ❖ Fire safety shows
- ❖ Mock drills
- ❖ Fire safety walks
- ❖ Fire station visits
- ❖ Fire safety posters
- ❖ Fire safety rewards.

Fire safety management has been extensively researched and procedures have been laid down. Usually it is not the absence of procedures, but the lack of will to adhere to the procedures and our failure to make resources available for safety management that lead to improper handling of crisis arising out of fire accidents.

RESPONSE TO GAS DISCHARGE

Gas leaks, either from a nearby factory or due to leakage from mobile containers carrying poisonous gases or from gas cylinders stored in the school or vicinity, can certainly pollute the atmosphere. Schools should have a response mechanism available to meet any crisis emerging out of the above. The following points are worth considering:

- ❖ What is the nature of the leaked gas?
- ❖ What types of impairment could it cause?
- ❖ Is the gas soluble in water?

- ❖ Does the gas cause breathing or respiratory problems?
- ❖ Does the gas affect eyes or vision?
- ❖ Does the gas cause any skin allergy?
- ❖ Is the gas inflammable?
- ❖ Would wearing a gas mask minimise the impact?
- ❖ In the event of gas masks not being available, are there other simple methods of preventing inhalation of the gas?
- ❖ What should be done to evacuate the students from the school immediately?

Some steps that could be taken:

- ❖ If the gas is water soluble, spraying of water might bring down the intensity of the gas soon.
- ❖ Covering the face or nose with a wet cloth might minimise the impact on the respiratory system.
- ❖ Wearing a mask would help in saving oneself.
- ❖ In the case of a gas being inflammable, disconnect the electric supply.
- ❖ Lighting matches or use of any other such lighting instruments should be avoided.
- ❖ It might be advisable to move the students away from the source of leak.
- ❖ Do not stand in the direction of the flow of wind which carries the gas.
- ❖ If the leak is from a truck or a gas cylinder, it is advisable to keep away from the source.

In the event of a gas leak, management of disaster is crucial as the speed of diffusion of the gas could be faster than the speed with which action plans are worked out. Therefore, the management team:

- ❖ Should not panic
- ❖ Should act quickly
- ❖ Should coordinate all systems
- ❖ Keep the transport in place to mobilise students and others
- ❖ Get the ambulance ready for any emergency
- ❖ Inform the nursing personnel to be present
- ❖ Access first aid for quick response.

RESPONSE TO EXPLOSIONS

Another disaster possible in schools could be due to - certain explosions. The sources of explosions in and around the school could be:

- ❖ A high power explosive device placed in or near the school campus like a bomb, an RDX device, etc.
- ❖ An explosion in the gas cylinder kept in the school
- ❖ An explosion in the laboratory due to inflammable chemicals
- ❖ An explosion in a transformer accompanied by an electrical fire
- ❖ An explosion triggered by lightning
- ❖ Use of crackers by the students in the school.

If a bomb has been found inside a school, the crisis management group should act immediately. The following things are to be done:

- ❖ Avoid panic
- ❖ Provide only the necessary and basic information
- ❖ Insulate the place where the device is supposed to be present
- ❖ Initiate an evacuation plan for students and teachers
- ❖ Ensure that there is no crowding or movement at points including the staircases

- ❖ Prevent students from moving to suspect areas to collect their belongings
- ❖ Define the assembly point which should be an open area
- ❖ Inform the police/local administration or the bomb diffusion squad, control office, etc.
- ❖ Clear pathways for the search squad
- ❖ Prevent movement of pupils from the control area to other places
- ❖ Keep first aid and ambulance ready
- ❖ Keep fire safety mechanisms ready
- ❖ Mobilise the resources in the nearest hospital for treatment of emergency
- ❖ Regulate the dispersal of students only after 'all clear' signals are given.

The normal response to suspected presence of explosives is panic. People start running helter skelter. They start rushing towards corners, and unsafe places and in the process create more confusion.

Students should be advised:

- ❖ Not to touch things they are unfamiliar with
- ❖ Not to touch things lying in nooks and corners
- ❖ Not to touch things which seem connected to a wire
- ❖ Not to carry their school bags while dispersing
- ❖ Not to take their own decisions but follow instructions
- ❖ Keep away from places where gas cylinders or gas connections are present
- ❖ Not to look for others when they are moving
- ❖ Give right of way to physically challenged persons to move ahead

- ❖ Allow children of smaller age groups to move ahead
- ❖ Not to carry their tiffin boxes with them while leaving the rooms
- ❖ Remain in the notified place till 'all clear' signals are given.

RESPONSE TO THUNDERSTORMS

Thunderstorms can suddenly develop during school hours. Heavy rains and thunder-storms may throw the regular functioning of the school out of gear. It is important that schools prepare themselves with a plan of management in case of thunderstorms well in advance. Some relevant issues to be addressed are:

- ❖ How is the movement of students to be regulated during heavy rain or thunderstorm?
- ❖ How could instructions be passed on to all the classrooms?
- ❖ Is there a public address system in place?
- ❖ Is the public address system functional?
- ❖ Is there audibility in each classroom?
- ❖ Are the instructions given clearly to avoid any confusion?
- ❖ If the school session for that day is coming to an end, and the students have to reach the school buses, what arrangements have to be made?
- ❖ Are the roads traffic-worthy and safe for transport?
- ❖ Is there a need for providing a communication to the parents? If so, how is that to be organised?

The schools need to be ready to handle the following issues in case of heavy rains and thunderstorms:

- ❖ Power cuts
- ❖ Poor visibility due to the weather

- ❖ Extreme windy conditions
- ❖ Flooding of the school campus
- ❖ Uprooted trees blocking the roads
- ❖ Notice-boards or asbestos roofing getting blown off
- ❖ Leakage of electric current in the walls due to seepage
- ❖ Heavy lightning

The safety management team should address the following issues:

- ❖ Is it safe to allow the students to move from one classroom to another?
- ❖ Is it safe to suddenly close school?
- ❖ How would the students who are not commuting by organised transports return home?
- ❖ Are there open drains inside/outside the schools which could be death traps for students walking along?
- ❖ Are there any electrical lamp posts in and around the school where there is a threat of electrocution?
- ❖ Are there sagging electrical wires in and around the school?
- ❖ What arrangements are in place to alert the electrical or fire- safety departments to attend to such hazards?
- ❖ If the school is flooded, are there adequate arrangements to drain out the water quickly?
- ❖ Who would be the officials responsible for ensuring safe movement of students outside the school?

Some issues related to transport management in this regard:

- ❖ Usually buses do not start during rains/thunderstorms/winter seasons due to poor ignition.

- ❖ The frequency of breakdown of buses during such seasons is high.
- ❖ The mobility and speed of transport is heavily affected due to flooding of the roads.
- ❖ Congestion of traffic due to heavy rains increases the possibility of accidents.

Students should be advised:

- ❖ Not to stand below tall trees during a storm
- ❖ To avoid standing near lamp posts or near sagging wires during lightning or heavy rains
- ❖ To protect their eyes during heavy lightning
- ❖ Not to stand near dilapidated walls or buildings during heavy rains
- ❖ To be wary of open drainage holes in the middle of the platforms or roads
- ❖ To avoid cycling or driving at great speed on slippery or waterlogged roads
- ❖ To take care while negotiating a curve on the slippery road while driving or cycling
- ❖ To take special care of disabled students and ensure their safety in all respects.

RESPONSE TO CYCLONES

Schools also have to take adequate safety measures against cyclones. As the cyclones can now be predicted in advance, the schools can gear themselves up with their safety management plans.

The school should have reflect the following points:

- ❖ Whether the school roofing is made to certain standards to face a tropical cyclone

- ❖ Whether the tree tops and branches near the school are pruned properly
- ❖ Whether shutters and the glass panes in the windows are fitted properly
- ❖ Whether there are any loose (construction) material left around which could cause damage during the cyclone
- ❖ Whether vehicles are in perfect condition for quick mobility in the event of any emergency
- ❖ Whether the diesel/petrol tank in the vehicles is full?

Schools should watch out for the following during a cyclone:

- ❖ Eye of the cyclone
- ❖ Direction of movement of the cyclone
- ❖ Likely speed of the wind
- ❖ Likely impact of the cyclone in that area
- ❖ Latest communication from the meteorological department
- ❖ Specific information or directive from local authorities

Steps that schools should take as a preventive measure:

- ❖ Ensure that students remain indoors
- ❖ Ensure that the younger students are well protected physically. They may also need emotional support and psychological reassuring.
- ❖ Keep emergency kits ready
- ❖ Keep all the doors and windows shut.

In the event of heavy gales accompanied by rain, the school must:

- ❖ Switch off the power
- ❖ Turn off the gas lines

- ❖ Protect important papers from getting wet
- ❖ Prevent the children from leaving school
- ❖ Avoid frequent movement of children inside the school.

After the cyclons ceases:

- ❖ Move only when the all clear signal given
- ❖ Allow children to move slowly
- ❖ Allow students to follow a prescribed route in the school
- ❖ Take care that students do not slip while climbing down wet staircases
- ❖ Deter students from going near electric lamp posts or power lines
- ❖ Deter students from stepping into stagnant waters
- ❖ Deter children from operating electric switches
- ❖ Deter students from drinking water held in exposed pots or containers.

Teachers should be responsible for the safe movement of students and should leave only after all the students have been evacuated. School telephone lines must be kept open for communication with parents at least half an hour after the students have left the school.

RESPONSE TO EARTHQUAKES

Earthquake is a natural phenomenon and one which cannot be predicted in advance. Hence, one cannot take preventive measures. The type and quality of response that one makes at the time of an earthquake, makes all the difference. It is also said, 'It is not earthquakes that cause the damage but the buildings where the earthquake has occurred that cause the damage.' Therefore, students can be trained to respond sensibly at the time of the earthquake so that their lives can be saved. Schools can prepare a plan for earthquakes by putting the following questions before them:

- ❖ Is the school situated in an earthquake-prone zone?
- ❖ Have adequate precautions been taken to lessen the intensity of damage in case of an earthquake at the time of laying the foundation and during construction?
- ❖ What is the height of the building and is that height within the prescribed limits?
- ❖ Is the building overpopulated from the point of view of earthquake safety considerations?
- ❖ Is any open space available near the building that could serve as an assembly point in the event of an earthquake?
- ❖ Are the exit points well designed for a quick transit of a reasonable number of people?

PREPAREDNESS FOR THE EARTHQUAKE

Schools should plan for disaster preparedness exercises. Evacuation drill is an important component of such preparedness exercises. The planning should address some of the following questions:

- ❖ What should staff and students do when they feel the first tremor of an earthquake?
- ❖ What are the places in which they should take refuge immediately?
- ❖ What rules should they follow when they are instructed to evacuate the buildings?
- ❖ What route should they follow during an evacuation?
- ❖ What care should they take while evacuating?
- ❖ Who should be given priority at the time of evacuation?
- ❖ How can they safeguard themselves against an injury?

- ❖ How should they get organised at the assembly points?
- ❖ How should they respond to the aftershocks?

Schools should have periodical earthquake evacuation drills. The responsibilities of various persons should be defined and fixed for crisis management.

OVERCOMING THE DISASTER

The normal scenario after an earthquake is one of panic, confusion and sorrow. It is imperative that schools try to gain control over the situation at the earliest. Some difficulties that may be anticipated consequent to the earthquake are:

- ❖ Restriction of mobility
- ❖ People trapped under debris
- ❖ Injured people in need of immediate first aid
- ❖ Psychologically disturbed people
- ❖ Damaged roads
- ❖ Disrupted communication
- ❖ Failure of water supply system
- ❖ Disruption in electricity supply
- ❖ Inaccessibility due to uprooted trees and damaged buildings on roads
- ❖ Unavailability of medical facilities
- ❖ Shortage of food supply.

Schools should have a brainstorming session to be prepared for such challenges by drawing up a contingency plan.

NEED FOR COORDINATION

To manage such an emergency situation, effective community coordination is required. The following persons/departments should be contacted and their support solicited:

- ❖ District Magistrate
- ❖ District Disaster Management Centre
- ❖ Meteorological Department
- ❖ Ambulance Service Stations
- ❖ Police Department
- ❖ Electricity Department
- ❖ Water Supplies Department.

Schools should keep the names of contact persons and their telephone numbers ready for immediate access. Normally these are available as print records in the school office and can be accessed during a crisis. In this context, schools should have the details on the cellular phones of the principal or some immediate seniors or wireless or a Ham Radio connection in their premises to meet any emergency.

MOBILISING SUPPORT

To help tackle the situation, the following support systems could be mobilised:

- ❖ Home guards
- ❖ Local NGOs
- ❖ National Cadet Corps

- ❖ Scouts and Guides
- ❖ NSS Volunteers.

PREPARING FOR REHABILITATION

After any disaster, the school has to be rehabilitated to normalcy; This will have to be done to restore confidence among the affected community. The principal has to initiate the following steps:

- ❖ Contact the local district magistrate or collector to seek his consent or direction.
- ❖ Seek information from the government or the meteorological department to ascertain possibility of repetition of the disaster.
- ❖ Call an emergency meeting of the school managing committee and school disaster management committee for necessary planning.
- ❖ Assess the extent of damage and seek remedial measures.
- ❖ Take steps for speedy commencement of regular work, if necessary, in a partial manner.
- ❖ Identify the repair and maintenance work in the school building and within the school campus.

Seek the support of the community in the restoration of normalcy

RESPONSE TO RIOTS

There have been cases when a school has been attacked during riots; buildings of the school being ransacked, attacked or burnt are also on record. The principal and the school team have to exercise adequate wisdom and common sense in handling and overcoming such situations as and when they arise.

Some possibilities which may arise in case of riots:

- ❖ Localised
- ❖ Might be spread over the entire city
- ❖ May be targeted against the school
- ❖ Unavailability of police protection when it occurs
- ❖ Forcible entry of the rioters into the campus or institution.

In all such cases, the school team should exhibit synergy and work in unison. Following are the immediate issues which need to be addressed:

- ❖ Are the school gates locked and closed to prevent the rioters from entering?
- ❖ Are students in classes facing the road safe from any possible attack of missiles, stones, etc.?
- ❖ Is there any probability of school buses or vans being attacked?
- ❖ What steps should be taken in case the buses are attacked?
- ❖ Has the police been contacted and informed of the prevailing situation?
- ❖ Is there any possibility of any explosives being thrown at the school? And what steps should be taken to manage an attack of this nature?
- ❖ How should the principal negotiate with the police or the rioters to ease the situation?
- ❖ What steps should be taken to ensure safe transport of students to their homes?

There have been cases of school properties being damaged during riots. Burning of laboratories or libraries are some possibilities. Ransacking the school campus and stealing costly equipments cannot be ruled out.

It may be worthwhile for schools to examine the insurance of the school properties against theft, natural calamities, riots, etc.

CHAPTER ELEVEN

EMERGING SOCIAL CONCERNS

And Safety Against Social Crimes

The dynamics of social activities and expanding horizons of consumerism have an impact on the lifestyle of students. The vision of a hero in their mind provokes certain activities which may not be in consonance with societal norms and conventional acceptance, in view of their tender age. Very often, the cinema, or television serials motivate them to do things which are prohibited by law, or are sometimes even suicidal.

Some of the issues which need to be examined in this context are:

- ❖ Students resorting to stealing even if they come from financially sound homes.
- ❖ Students hijacking automobiles of other students from the campus, either for a joy ride or with the motive of theft.
- ❖ Students moving into wrong company and exhibiting macho behaviour or projecting themselves as a hero or a heroine.
- ❖ Students taking to alcohol, drugs and other forbidden narcotics.
- ❖ Students resorting to eve-teasing.
- ❖ Students indulging in sexual exploitation and related crimes.
- ❖ Students indulging in cyber crimes.

CASES OF THEFT

Cases of students stealing the properties of other students have been a matter of concern for long. A large number of students steal not to sustain themselves but to keep up with their wants. Insatiable desire to project an image of what they are not or to acquire things which have not been provided to them, instigate them to steal. They steal not only from others, but also from their own homes and their parents.

Schools need to trace the behavioural pattern of such students and offer them effective counselling. This becomes necessary, especially, in the context of the responsibility vested in schools in developing the right attitudes among students. To prevent occurrence of such incidents in the school campus, the following actions can be taken:

- ❖ If there is a cycle stand, the cycles can be numbered and tokens issued to the owners.
- ❖ Students should be forbidden from using two-wheelers.
- ❖ Students permitted to use two-wheeler, should have a school permit which is not transferable.
- ❖ Schools should have a deposit system where the keys of the vehicles can be deposited both by the staff and the students. The keys are to be issued only to the owners at the time of dispersal.
- ❖ In the event of theft of an automobile/cycle, a police complaint should be lodged.
- ❖ Theft of library books or software from computer units should be tracked.

In all cases, counselling of students and their rehabilitation is more important than initiating criminal proceedings against them.

CASES OF EVE-TEASING

Adolescence is a very difficult period when the young students are just beginning to come to terms with their individuality and sexuality. One of the major attributes of adolescence is the urge to mix with or interact with the opposite sex. An adolescent tries to exhibit behavioural patterns which he/she hopes will attract the opposite sex. Some of the behavioural patterns exhibited by the students include:

- ❖ Showing an overt sexual behaviour in the presence of the opposite sex
- ❖ Speaking or laughing loudly in the presence of the opposite sex
- ❖ Make casual or obscene remarks about others
- ❖ Threatening the members of the opposite sex with dire consequences
- ❖ Stalking the members of opposite sex
- ❖ Misbehaving with fellow students seated in adjacent seats in buses.

On many occasions this leads to eve-teasing. Cases of eve-teasing have to be handled with sensitivity. School counsellors have a very important role to play in counselling young people. In certain cases, the matter should be handled with the confidentiality it deserves.

To avoid eve-teasing in school premises and outside, schools should have a vigilance committee consisting of teachers (both male and female). Their role should not be seen as policing the campus but more as precautionary measures to avoid any untoward incidents. The girl students can be advised:

- ❖ Not to move alone in the school campus or outside
- ❖ Not to be seated in lonely places
- ❖ Not to talk to strangers
- ❖ To be careful in their discussions with the peer group (to avoid discussion on provocative topics).

It is necessary to advise the boys to:

- ❖ Appreciate gender differences
- ❖ Develop their self-esteem
- ❖ Respect the feelings of their peers belonging to the opposite sex
- ❖ Develop a value-based approach to life.

CASES OF BULLYING

Bullying is a common phenomenon in most schools. There are several instances of bullying, such as:

- ❖ Bullying of the younger students by the elders
- ❖ Bullying of the humble and meek students by aggressive students
- ❖ Bullying of the academically weak students by academically brilliant students
- ❖ Bullying of physically challenged students by others.

A student can bully another fellow student in various ways:

- ❖ By verbal abuse
- ❖ By emotional abuse
- ❖ By physical abuse
- ❖ By threat
- ❖ By emotional blackmail.

Quite often, rich students tend to bully the economically weaker students. Extreme and continuous bullying has often led to very severe problems. Some schools have seen the following types of reactions:

- ❖ Individual attack by the victim on the bully
- ❖ Aggressive behaviour by the individual on the bullied
- ❖ Exhibition of violence by the bullied as a reaction to his injured sentiments

- ❖ Group clashes between students
- ❖ Clash between the families of pupils involved
- ❖ Suicide by the bullied.

Bullying of young and school-going children by parents and relatives is also a common phenomenon though done inadvertently. Some normal issues on which they are bullied, are:

- ❖ Physical features
- ❖ Colour
- ❖ Academic performance
- ❖ Levels of achievement.

Such bullying is done by comparing the individual with:

- ❖ Siblings
- ❖ Close relatives
- ❖ Wards of friends and neighbours.

Several cases of suicides or attempts to suicide have been reported due to the emotional set-back these individuals have had, consequent to such comparisons. Moreover, students who are unable to react instantly at home, exhibit violent reactions elsewhere and at school. The violent dispositions which they assume in school may very often be the reflection of such inner emotional insecurity. Schools need to interact with the parents of such students and educate them.

CASE STUDY

In mid-August 2000, a 15-year-old boy from Ohia, on the southernmost island of Japan, inflicted a multiple murders by stabbing. His father accused him of spying on a neighbour's 15-year-old granddaughter and after that the boy termed as 'accusing looks' by the neighbour and his family, he decided to kill them. He waited for midnight, broke into the house, stabbed all the six residents and then tried to burn the house down. According to neighbours, he had always been a rather quiet, normal boy and had reportedly been the victim of school bullying and extortion.

The outcome of bullying can get exhibited in different places and in different ways. Bullying may have different types of impact on different types of students, some of which are:

- ❖ It may cause an emotional hurt
- ❖ It may have a demoralizing effect on the individual
- ❖ It may affect the motivational level and performance of the individual
- ❖ It may induce violent reactions against the bully
- ❖ It may inhibit the child from active participation in various activities
- ❖ It may make the individual an introvert
- ❖ It may lead to self-pity and self-contempt
- ❖ It may make an individual dependent on others.

There could be several other effects of bullying. Schools need to protect the image and the profile of all individuals. It is important to protect students against emotional hurt. Sometimes, deep emotional hurt may even lead to suicidal tendencies on the part of the victims. How can schools prevent such instance?

- ❖ Counselling students with aggressive behaviour about the harm they can inflict on others.
- ❖ Counselling the emotionally weaker sections of students and encouraging them to build up their self-esteem so they can face challenging situations with comfort and confidence.
- ❖ Counselling the physically challenged to build their sense of self-esteem.
- ❖ Interacting with parents of both sides and seeking their help in removing the maladjustments.
- ❖ Providing platforms for both types of students to work together to understand and appreciate each others' strengths and weaknesses.

In most cases, the initial steps are quite important to prevent any possible fallout.

FACT FILE

Canadian-based education research suggests that there is a high rate of aggression among the school-aged children. Charach, Pepler and Ziegler's study of child and youth aggression indicated that 19 per cent of elementary school students reported that they are bullied more than twice a term, while 9 per cent of children admitted to bullying others on a weekly basis. In a ground-play setting, Craig and Pepler noted that incidents of bullying occurred as often as once every seven minutes.

VIOLENT BEHAVIOUR IN SCHOOLS

Lack of tolerance is becoming a common feature of society. Pupils learn consumerist behavior from their elders and the society and imbibe the following qualities:

- ❖ They tend to possess many material things
- ❖ They want to exhibit heroic behaviour
- ❖ They want to project themselves as powerful leaders
- ❖ They tend to act as agents of external anti-social groups.

As a result of the above, they have near zero-tolerance and act violently in schools. Some major manifestations of such behaviours are:

- ❖ Indulgence in fights with their classmates
- ❖ Carrying pen knives or other sharp instruments
- ❖ Causing damage to the school property
- ❖ Indulging in verbal abuse of classmates and teachers

- ❖ Indulging in physical attacks against school staff.

Such exhibition of violent attitude in schools is usually an outcome of maladjustment. It is important for schools to ensure safety of other students from such individuals. The objective of the school should not be to remove such students from the school environment but to take serious initiatives to rehabilitate them. This can be done exclusively by counseling the students concerned as well as their parents. It is quite possible that such attitudes develop due to:

- ❖ The role model provided by the parents
- ❖ Indifferent attitude of the family towards the child
- ❖ Encouragement of violence by family members specially elders
- ❖ As a reaction to a deep hurt in the psyche of the student
- ❖ Broken homes
- ❖ Single-parent homes
- ❖ Economic inadequacies
- ❖ Social discriminations
- ❖ Deviant cultural environments.

Schools need to take the following initiatives to face such situations:

- ❖ Ban on possession of pen knives and other sharp instruments in the school premises
- ❖ Ban on fights in the school campus
- ❖ Prescription of punishment/rustication in the event of damage to school property
- ❖ Ban on physical attack on any student
- ❖ Indictment on verbal and emotional abuse.

Imposing severe punishment on students found guilty of aggressive behaviour should be resorted to only in rare cases. The emphasis of the

school has to be always on rehabilitation of the students. Deterrents are to be employed only in unavoidable circumstances. Violent attitude exhibited by students can be reduced by proper understanding of their environment.

Students could be educated on the need for developing self-esteem and responsible behaviour.

DRUG ABUSE IN SCHOOLS

Increasing evidence of drug abuse in schools is being reported the world over by the media. For many governments, it is becoming an area of social concern. Schools should ensure that pupils do not use drugs within or outside the school campus. It becomes the school's responsibility to educate students about the ill effects of drug abuse.

The reasons for drug abuse can be attributed to:

- ❖ Lack of adequate love and care in the family
- ❖ Excessive patronage to the child without monitoring him/her
- ❖ Provision of excessive pocket money
- ❖ Lack of awareness about the company kept by the students
- ❖ Absence of self-esteem in the students
- ❖ Inadequate information about the impact of drugs.

Most often, students start abusing drugs because they feel that:

- ❖ Drugs help in projecting a heroic personality
- ❖ Drugs help in boosting their morale
- ❖ Drugs help in enhancing their sexual image
- ❖ Drugs give courage to fight with others and in facing problems.

Educating the young against drug abuse is crucial to a society conscious of its social health. Schools should bring home the negative effects of drug

abuse to the students. It may not be necessary to take an aggressive stance to educate them on these issues. They need to be fine-tuned in the learning process so that the negative impact of drugs becomes an effective deterrent in itself, encouraging students to avoid the temptation of dealing with drugs.

This can be done by organizing:

- ❖ Lectures by doctors/counselors
- ❖ Exhibitions/films on drug abuse
- ❖ Peer group discussions on the social impact of drugs
- ❖ Interaction with parents for their involvement in the elimination of drug abuse
- ❖ Bringing home the legal/punitive dimensions of drug abuse.

Schools must be aware of the sources of drug passage into the schools. Quite often these may be very close and visible. Some possible sources are:

- ❖ The small sweet or stationery shops near schools
- ❖ The vendors selling edibles; people distributing bills or notices outside the schools
- ❖ School drop-outs or anti-social elements frequenting the schools premises
- ❖ Some unscrupulous school staff.

Initially drug abuse starts as an adventure but gradually turns into a habit. Schools, therefore, should form a plan of action and act accordingly to tackle the menace.

Worldwide debates are being held regarding the nature and content of sex education in the school curriculum. The role of schools is very sensitive in this field of education. While schools need to provide basic health-related information to students and educate them on issues like HIV, AIDS and other

sexually transmitted diseases, it is essential to plan sex education well in advance and then put it into action.

Value orientation and value education assumes a significant role in this direction. Some safety concerns that schools should address are:

- ❖ Ensure that students do not unnecessarily stay back in the campus after school hours
- ❖ Educate the girl students on physical abuse by others
- ❖ Educate the students on issues of sexual hygiene
- ❖ Educate the students on the legal and social implications of rape.

CHILD ABUSE IN SCHOOLS

Child abuse in schools though a matter of utmost concern, is not given due importance by school authorities. This could be attributed to certain strong cultural and social values on which the society's structures have been designed. Nevertheless, there are cases which draw our attention to such issues, and point out the need for developing right and appropriate strategies to tackle this issue. The family's support and care for the child is a strong protective factor in eliminating child abuse.

Child abuse manifests in different ways:

- ❖ Child labour
- ❖ Begging, theft and other social crimes committed by children
- ❖ Sexual abuse of the child.

Child labour is a major social issue but does not fall within the parameters of the theme of this book. It is disheartening to note the employment of child labour within the premises of the school. One can see young children being employed for some of the following purposes in the school campus:

- ❖ In canteens as servers/waiters
- ❖ In maintenance units/ for school/toilet cleaning
- ❖ In hostels for maintenance work
- ❖ In school construction work as labourers.

Such scenes are also visible sometimes not only in private institutions, but in government-owned institutions. Corrective steps are necessary. The heads of institutions should identify such cases of child labour and carry out proactive rehabilitation work.

Sexual abuse of children in the school warrants close attention. The schools should address the following issues:

- ❖ Are the primary children in the school safe?
- ❖ Is there adequate supervision over their movement in the school campus?

Quite often, the possibility of child abuse by those who escort the small children to school cannot be ruled out. It is important for both the parents and schools to have an idea on how the child is being escorted. Now-a-days, with both parents busy with their careers, the children tend to stay at home for long hours under the care of servants. It is important to have a complete profile of the person and his/her attitudinal patterns.

In the school environment, it should be ensured that no child is left alone unattended for long hours after the school has closed. Safety management of such students has to be discussed and a route map worked out.

When it comes to the exploitation of older, adolescent students, schools need to take some extra care. Cases of abuse get reported due to interaction between school staff and students after school hours. Sometimes, schools ask the students to stay back for the following reasons:

- ❖ Extra coaching

- ❖ Games and physical exercise activities
- ❖ Preparation/rehearsal of events/programmes

The Following questions have to be addressed:

- ❖ Are there students staying back after school hours?
- ❖ How many students are staying and under whose instructions?
- ❖ How long are they expected to stay?
- ❖ What is the type and level of supervision?
- ❖ What is the arrangement available for their return?

Schools Should take care of the following issues:

- ❖ No single girl child is retained for an event/programme without an escort.
- ❖ No single girl child is deputed to any event outside without an escort.
- ❖ No single girl child is left in the school van/bus as the last person to be dropped.
- ❖ At least one lady staff member stays in the school till the last girl child moves out of the campus.

Most cases, involving child abuse are not reported 'for the sake of secrecy' or 'for the shame involved' in such cases. It is important that the school safety committee takes up appropriate initiatives to deal with such cases in a professional manner leading to punitive measures of the guilty as per the provisions of law.

ABUSE OF TECHNOLOGY

In a school environment, technology is both a blessing and a curse. When it comes to the disadvantages of technology, it is seen that many youngsters do not realize the seriousness of the crimes they tend to commit as they have

no understanding of the legal implications of such things. Evidences have come to light where the abuse of technology in the school environment has led to avoidable difficulties. Some instances of technology abuse are:

- ❖ Accessing adult internet sites
- ❖ Using e-mails for sending filthy and threatening messages to others
- ❖ Manipulation of data by hacking the servers
- ❖ Spreading virus and other inflammatory messages to crack other servers
- ❖ Hacking into the privacy of other IT users
- ❖ Hacking the ID of the credit cards of others for their personal use.

There are other dimensions of technology abuse. Though there are no strong indicators of explosive cyber crimes in schools, it has become absolutely necessary to protect the school systems from external interventions.

CASE STUDY

On 7 June 2002, two high school hackers attacked the school computer system to access the school grades. They turned their infiltration into a real world crime when they sold the change in the grade to fellow students.

*Source: The Potential Abuse of Technology in Schools
By Susan Quinn (25 September 2004)*

To forbid the use of technology by students is a negative and absurd proposition. It is, instead, important to moderate and monitor the use of technology. Some of the initiatives the schools can take in this regard are:

- ❖ Place the computer with internet access in a central area.
- ❖ Disallow face-to face interactions in schools through webcams.
- ❖ Advise students not to give their names, ID and password to others.
- ❖ Disallow personal profiles or personal web pages to be displayed or linked to the school website.

- ❖ Disallow on-line chats in school with friends.
- ❖ Disallow the use of their own credit cards or of their parents' on the net.
- ❖ Disallow net shopping in the school premises.

The other protective steps that can be taken in this regard are:

- ❖ Net should be used only with the permission of the authorized person.
- ❖ There should be a laid-out procedure for net logging and sign-out.
- ❖ Access to certain sites can be filtered or blocked.
- ❖ Digital cyber-patrol systems could be imported for watching through servers.
- ❖ The ISP operators for schools could be instructed to offer server-level filters.
- ❖ Use of search engines could be restricted to certain established search engines.
- ❖ Creating firewalls to protect the security of vital school documents.

It is important for the schools to train their students to become good netizens.

CASE STUDY

CNN.com reports a story about an investigation at the University of Georgia, where 'hackers gained access to Social Security and Credit Card numbers of 31,000 university students and applicants (2004).'

USE OF MOBILE PHONES

Questions have been raised across the country about the use of cellular telephones by students in the school premises. Many local governments have even banned the use of cellular phones inside the school premises by the students.

Arguments are also advanced by parents and some technocrats that banning their use is a retrograde step. They have a great value in enhancing the safety of the students as they can communicate with anyone when they are in unsafe conditions. Nevertheless, this argument has not been taken as valid vis-à-vis other consideration, which seems to justify the banning of the instrument from the school premises.

Some disadvantages of the use of mobile phones are:

- ❖ Students tend to have long conversations over the phones which are avoidable.
- ❖ The attention of the students is drawn away from the classroom to other comparatively less important matters.
- ❖ They are likely to get trapped in provocative conversations and temptations.

USE OF POCKET MONEY

Of late, parents from affluent families and business houses provide excess pocket money to their wards. The students tend to visit five star hotels, clubs and also make heavy purchases. This is likely to have a serious impact on the psyche of the child in the long run. Parents would be well-advised to exercise caution in this regard.

WEEKEND PARTIES, GET-TOGETHERS

There is increasing incidence of weekend parties and get-togethers among students of schools. Visit to clubs, long hours of dancing and alcohol consumption among others seem to be defining the profile of the up-country student who is 'advanced'. Cases of periodical school get-together or send-off parties in five star hotels and clubs are nothing new nowadays. In many cases, though parents are not in a position to afford such outings,

they stretch their meager savings, so that their wards do not feel inferior as compared to other children.

It is necessary for schools to keep track of such events. A candid discussion on this issue with the parents, the management and the teachers is not a bad idea. While giving the students the necessary space and freedom, they need to be informed of their basic obligations to their families, schools and th society.

CHAPTER TWELVE

SAFETY DURING

School Functions

School functions provide an important image-building exercise for the school. Hence, schools always take an overdose of interest in them. Sometimes, the focus on various cosmetic aspects of these functions marginalizes the safety dimensions. It is important that the schools have a route- map for conducting school functions. It will not only indicate the sequence and modalities of the function, but will address various safety concerns involved in conducting each event.

Some of the functions conducted in the schools are:

- ❖ Annual Day celebrations
- ❖ Sports day celebrations
- ❖ Republic day/Independence day celebrations
- ❖ Sponsored programmes by schools
- ❖ School competitions involving various events.

ANNUAL DAY CELEBRATIONS

The Annual Day is celebrated in almost all schools. Some schools conduct these programmes in an auditorium either in the school or outside which is well protected. Many schools conduct such programmes in the open air theatre in the school. Quite a few organize such programmes with arrangements of shamiana which is used to cover all sides. Some schools decorate the venue with excessive light fittings and arrangements.



Some major safety concerns in case a shamiana is arranged are:

- ❖ Is the shamiana strong enough to withstand mild windy conditions?
- ❖ Is there a possibility of the shamiana getting uprooted due to strong winds?
- ❖ Is the shamiana good enough to withstand mild rains?
- ❖ Is the shamiana supported by bamboos/iron poles and other support mechanisms on all sides?
- ❖ Is the exit (from the shamiana) only on one side or are more exits available?
- ❖ Are there any electrical wires or electric lights attached to the canvas cloth that could lead to an electrical fire?
- ❖ Are there any gas stoves/cylinders which are operating close to the shamiana that could lead to fire?

If the function is conducted in a closed auditorium, the following issues need to be taken care of:

- ❖ Does the number of seats in the auditorium correspond to the number of invitees?
- ❖ Is there any possibility of a stampede?
- ❖ Does the auditorium have multiple entry and exit gates?
- ❖ Does the auditorium have enough scope for cross ventilation and air flow?
- ❖ If the auditorium is air-conditioned, is the air cooling or conditioning system functional?
- ❖ In the event of power cuts are there generators available to support them?
- ❖ Are there adequate firefighting instruments available within the auditorium?
- ❖ In the event of a fire, are there facilities available for an early exit?
- ❖ Is the auditorium on the ground floor or the upper floors? Are the staircases leading to the auditorium broad enough for free movement of people?

While preparing for such school functions outside the school building, the following questions are to be answered:

- ❖ Is there a need to obtain a license from local authorities for conducting the function?
- ❖ Is there a need to apprise the local electrical department about the need of uninterrupted power supply?
- ❖ Is there a need to apprise the local traffic department for safe flow of traffic to the venue?
- ❖ Is there a need to alert the local fire station to be ready for any emergency?

- ❖ Is there a need to house a fire engine near the venue?
- ❖ Is there a need to keep a medical unit ready for to meet an emergency?
- ❖ Are there any volunteers to regulate the people and the traffic to avoid any stampede?
- ❖ Is there a stall for selling eatables, and if so, are they licensed vendors with quality products so that the visitors are not exposed to unhygienic preparations?

The schools should take care of the following:

- ❖ Calculate the approximate electrical load to be used during the function.
- ❖ Identify the points where there could be a possibility of a short-circuit.
- ❖ Identify points where loose wires have been employed and take remedial action.
- ❖ Provide entry and exit boards for the participants.
- ❖ List the inflammables being used during the function.
- ❖ Identify the place where the participants would move in the event of any emergency.
- ❖ Providing exit indicators on all staircases available if the event is held in places other than the ground floor.

There are a number of other things the schools should take cognizance of while making arrangements. A few relate to stage management.

- ❖ Is the stage strong enough for the people to be seated or performances to be conducted?
- ❖ Is the stage wide enough to avoid excessive crowding?
- ❖ Is there any possibility of a stage collapse?

- ❖ Are the chairs and tables laid out on the stage firm and strong?
- ❖ Is the carpet on the stage laid properly so that no student falls down due to improper placing of the carpet?
- ❖ Are there any loose wires lying on the stage which would inhibit free movement of persons on the stage?
- ❖ Is the ladder to the stage sturdy to allow safe movement of students to the stage?
- ❖ Are ladders provided at both ends of the stage to permit the entry and exit movements of the students?
- ❖ Are there any flashlights on the stage with loose electrical connections?
- ❖ Are the electrical connections in flashlights and other instruments capable of withstanding sudden wattage load during events?
- ❖ Are any electrical devices kept to create fire through arcing and are they safe enough to be kept on the stage?

The schools should also plan for alternative arrangements to meet the following emergencies:

- ❖ Sudden dust storms
- ❖ Unexpected heavy rains
- ❖ Electricity failure
- ❖ Bomb hoax.

During such functions, some anti-social elements may take advantage of an access and try to create mischief. The schools should keep a vigil on such outside elements. In the event of an electrical failure or other unexpected interventions, the following events might occur:

- ❖ Theft
- ❖ Bullying

- ❖ Eve-teasing
- ❖ Molestation
- ❖ Physical hurt/injury
- ❖ Kidnapping.

PLANNING THE EVENTS

Planning school functions calls for a lot of wisdom. Many schools organize programmes that go on for long hours, which tire the audience and makes them restless and thus making way for unsafe conditions. Events must be planned well and at no cost should exceed 90 minutes if it is during the day and 75 minutes if it is late in the evening. In a large number of cases, the function is delayed due to the late arrival of the chief guest or a VIP. The schools should start the entertainment programmes whether or not the identified guests are present so that the time schedule for the programme is maintained.

There are aspects of safety involved in the preparation of students participating in the programmes to be staged.

- ❖ When are the students expected to be present for rehearsal/make-up, if any?
- ❖ Have they been provided some food/snacks to energise them for the performance?
- ❖ Are there any students who are sick and unfit for performance? Do they need any medical attention?
- ❖ Are the cosmetics being applied to the students of good quality and has a patch test been carried out to ensure that it won't cause any allergy?
- ❖ Do the costumes fit the students well enough to allow them to breathe easily and at the same time not very loose that the students trip over them?

- ❖ Are students expected to carry any lamp or fire during the events? Is there a possibility of such things falling and causing a fire?
- ❖ Are the stage floors free from nails or other things that would poke or cause injury to the dancers or other performing artistes?
- ❖ Are any gasses being released on the stage during the programme which could affect the students during the events?

All the above are only a few suggestive guidelines to the schools for effective and safe management of their programme. However, schools need to deliberate over this issue and design their own safety management instructions depending on local requirements.

CHAPTER THIRTEEN

REPORTING SCHOOL ACCIDENTS

In many cases school accidents are not recorded properly but are just taken as an unexpected event and forgotten too soon. There is no evidence available in every school with regard to the number and types of accidents. There is no system prevalent for maintaining records of accidents whether they are minor or major. Consequently there is no systemic response to safety management in schools.

In most cases the approach to safety management is one of fire fighting. When an accident occurs, there is heavy media sensationalisation, tears are shed, sympathies expressed, promises made and a few officials suspended. As time passes by, the entire issue is back to square one, possibly waiting for the next occasion to repeat the course of events.

It appears that the Government, the Boards and the various stakeholders in the system are haunted by fear of provoking the issue, as the more you start examining the concerns and issues, the more you realize what little has been done in this area. It seems necessary for the Government to take a holistic view of this issue and initiate some positive and forceful action in the best interest of the younger generation. Though it is already a belated issue, it further appears that we would not be able to solve this problem if it is not done immediately in the course of the next couple of years. Strong and committed political will supported by administrative measures are necessary to combat the problem in full measure.

The following suggestions are worth considering:

- ❖ Maintenance of a school accident log book has to be made mandatory. It should have a respectable and rightful place like any other records related to human management.
- ❖ The method of recording small, medium and major accidents should be outlined.
- ❖ The causes of the accidents and related issues shall be recorded.
- ❖ The source of the accident should be traced and documented.
- ❖ A Technical opinion or review from an outside agency has to be a part of the recording procedure.
- ❖ The number of persons and the property affected should be listed and maintained for perusal.
- ❖ The persons who have been killed, totally immobilized, partially immobilized or affected for a short time should be recorded.
- ❖ The medical treatment and history of treatment given should be listed along with the history of the accident.
- ❖ The measures taken to manage the issue need to be listed.
- ❖ The profile of the organization or people involved in the management of the accident should be recorded.

WHEN SHOULD THE ACCIDENTS BE RECORDED?

It is important that accident reporting and recording should be done at the earliest possible opportunity possibly on the same day. One member of the safety team of the school should be trained in the procedures of accident recording and reporting. They should have a standardized format which could facilitate recording as much of relevant data as possible.

The following points are worth considering:

- ❖ As far as possible the person who documents should have no connection with the causes that have led to the accident.
- ❖ The persons who documents should be a senior staff of the school, one who has a basic idea about the infrastructures and school plan.
- ❖ The information should be written in pen, and not in pencil to ensure that information is not erased or distorted subsequently.
- ❖ The report should enlist the witnesses who were present during the accident and if possible a written statement should be obtained with their signature.
- ❖ The statements of the witnesses should be as far as possible in their own handwriting.
- ❖ In the event of the witness being a student of junior classes the statement could be written by a teacher. It must be read out to the students in the presence of a witness and the signature of the witness be obtained.
- ❖ If the incident has taken place outside the school, the report should carry the list of students who were involved in the incident and the people present at the place of the incident.
- ❖ List of agencies/visitors to the spot of the accident and the objective of their visit should be recorded.
- ❖ The materials collected from the spot for further investigation should also be listed.

REPORTING OF THE ACCIDENT TO THE PARENTS/PUBLIC

It is important that the information with regard to the incident/accident is conveyed to the parent concerned/guardians at the earliest possible time.

Such information should comprise

- ❖ The place and nature of accident
- ❖ The time of the accident
- ❖ Description of nature of injuries as reported
- ❖ Details of action taken including first aid
- ❖ Present status
- ❖ Contact telephone numbers or places
- ❖ The immediate steps to be taken by the parents/guardians.

Soon after an accident/disaster, a review committee for the same should be appointed by the management of the school. It should have representatives of the management, of the teachers, of the parents and of a professional organization from the field of safety management. The committee can be constituted depending on the nature of the accident. If it is minor event, the committee could be small and internal. If it is a larger event which has garnered the attention of the public, then a larger committee could be constituted.

The terms of reference of the review committee should be comprehensive and should broadly include the following features:

- ❖ The source of the accident
- ❖ Reasons for failure to preventing the possibilities of such accidents
- ❖ The persons responsible for failure, if any.
- ❖ The scope of the accident and the damage control exercises that could have been taken.
- ❖ The missing links in the safety management in terms of hardware, software and human ware.
- ❖ The response of the school system to the accident with shortcomings, if any.

Recommendations for restoration of normalcy in terms of:

- ❖ Immediate steps
- ❖ Short-term steps
- ❖ Long-term steps.

The committee should also examine whether the school safety profile is sound, both qualitatively and quantitatively. Remedial measures wherever necessary should be suggested.

It should examine whether the records are being maintained appropriately and in time. Normally records are fabricated and written to please the authorities. It is important that the data should be factual and based on observations.

MAINTENANCE OF RECORDS

All relevant records of the incidents/accidents should normally be maintained for a period of ten years in the event of minor incident and for a period of 15 years in the case of major accidents from the date of occurrence.

It is important that all data and relevant records are maintained appropriately in view of their legal status.

SCHOOL ACCIDENT POLICY

And Controls

There is an increasing evidence of accidents in schools in one or the other part of the country. Some are natural calamities and others are outcomes of human indifference, negligence or violent reactions. Some attract the attention of the media and are brought to the light of the public. Many either go unnoticed or are suppressed at the local level for various reasons. The smoke and fire associated with the accidents of such kind appear to be short lived and are used mostly as sensational news rather than as matters of potential concern for which some remedial action has to be taken.



Many of these accidents are treated as casual occurrences caused by negligence of an individual or a system. They are written off from human memory and records sooner than later. Neither the government nor other agencies appear to have a clear cut policy on handling such issues as these are deemed more as fire fighting exercises undertaken only to address the immediate needs of an occasion.

NEED FOR A NATIONAL POLICY ON SCHOOL SAFETY

It is important that Government takes initiatives to develop a National Policy on School Safety. The objective of such a policy should focus on the concern of the Government for the care of the young children studying in school systems across the country.

A National Policy on School Safety could express both its intents and programs on many relevant issues. Some of the policies could be on:

- ❖ School locations
- ❖ School structures
- ❖ The quality of the infrastructure and other appliances in the school plant
- ❖ Basic health concerns in the school plant
- ❖ Support systems during natural disasters
- ❖ Support systems for health care
- ❖ Security and surveillance of the students in schools
- ❖ School environment
- ❖ Accident management plans and trauma care
- ❖ Policy regarding insurance of the victims during accidents.

There are several other issues related to the school safety which could be critically analysed and detailed in the policy statement.

The urgency of action in this regard cannot be underrated.

NEED FOR NATIONAL SCHOOL SAFETY AUTHORITY

The Government also has to put in place a National School Safety Authority. This authority should have statutory powers to deal with all matters concerned with school safety including drafting policy perspectives, issue of guidelines, implementation of the rules formulated, monitoring and disciplining of the erring institutions and to cause penal provisions wherever necessary.

The National School Safety Authority should be an umbrella authority consisting of various than policing/mentoring organizations.

Such authorities could be established at the state level also and these would work under the direct guidance and supervision of the NSSA.

Given the large size of the school sector and the population of students and other stakeholders to be handled, the model could be replicated for each state.

On similar Lines, A Nodal officer on School Safety could be appointed at each district level who would monitor the related issues.

It is important to ensure that such mechanisms again do not end up as clones of the inspection Raj, but should don the mantle of a mentor and monitor to ensure that things happen well, they should act as friends and partners in enabling a threat free environment in schools. Care has to be taken that these agencies again do not protect violations of the prescribed norms through corrupt practices. Mere establishment of agencies would not do, but a set of committed officials need to shoulder the responsibility for such an authority. A three member committee could be drawn out of the disciplines of education, engineering, medicine, vigilance and security and administration.

The Establishment of an authority of this kind is not intended to challenge the present statutory status of Educational Agencies and Boards. As such the Boards of education should be facilitated to play a more vibrant and a

pro-active role in the empowerment of the academic health of the school systems rather than indulging in matters in which they have inadequate expertise or in which they would have to depend on external agencies.

The School Safety Authority should also address the need for prescribing norms for modeling the schools for various safety concerns. While the Government should subscribe to the establishment of such Authority they could be made self sustainable through a nominal annual fee payable by all private institutions being serviced by them. The authority could also provide a common platform for insurance coverage of the system through a nominal annual premium payable to the institution both by the Government in respect of its stakeholders and the private initiatives in respect of its populace.

The entire network of schools across the country could be profiled on a database in terms of their structure and services and could be closely monitored. It will also help in mobilizing support services wherever and whenever necessary.

As it would not be possible to take on the mantle for the ownership of safety by a single organization, the authority could develop self-organized local networks involving parents, teachers and other social activists to deal effectively with local issues. Educating the stakeholders on issues of safety in schools is an emerging vital concern. The responsibility of this has to be taken both at the macro and the micro level through organized sensitization and training programs. This can be done both through direct mode and electronic mode.

It must be admitted that the country has a large network of educational institutions which have been established decades ago. Such institutions may not fit into the specifications and prescriptions of safety as visualized in the modern context. Hence, there should be a two pronged strategy-one to deal with the new institutions (as we anticipate the creation of over a hundred

thousand institutions in the next decade ahead and another to deal with the existing superstructures which do not meet the present requirements. A clear cut policy should be taken to progressively improve the standards of safety in already established institutions through negotiation, directions, sponsorships and motivation. This has to be done within a prescribed time frame lest the spirit of the issue is negated and the work put in cold storage.

The argument that the country needs a lot of schools in view of the mere numbers that seek entry into school systems should not be a roadblock to implement the safety perspectives. Safety has to be matter of basic existential attitude and hence has to be incorporated into every frame of the thought process of educational administration.

It is equally important that the curriculum of teacher education is appropriately modified to reflect the relevant issues of safety and their management in schools. The specific and unique issues related to the school safety have also to be made a part of the curriculum of traffic management,



health management, fire and accident management, civil engineering, architecture, security and policing. Specific modules could be developed for the heads of institutions and educational administrators on relevant issues and they may be required to qualify in modular courses before being declared eligible for higher posts.

It would indeed be a great day in the democracy of this country if only greater attention is paid to a safe environment for its younger generation in schools, as a majority of this younger generation cannot make any demands to any body on several of the issues raised in this book!