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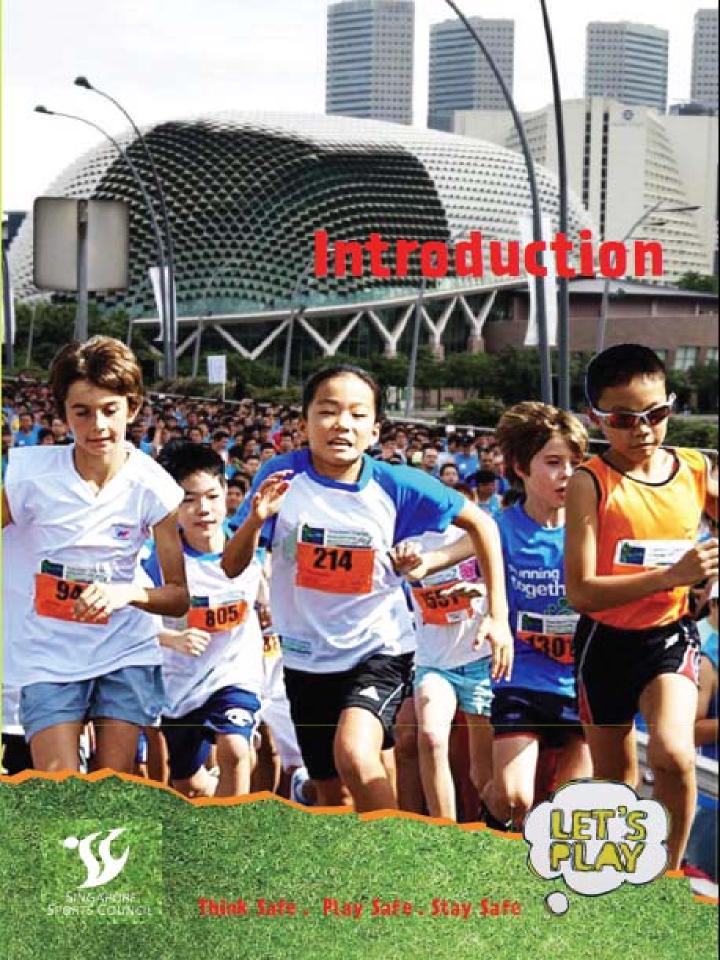
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1. INTRODUCTION

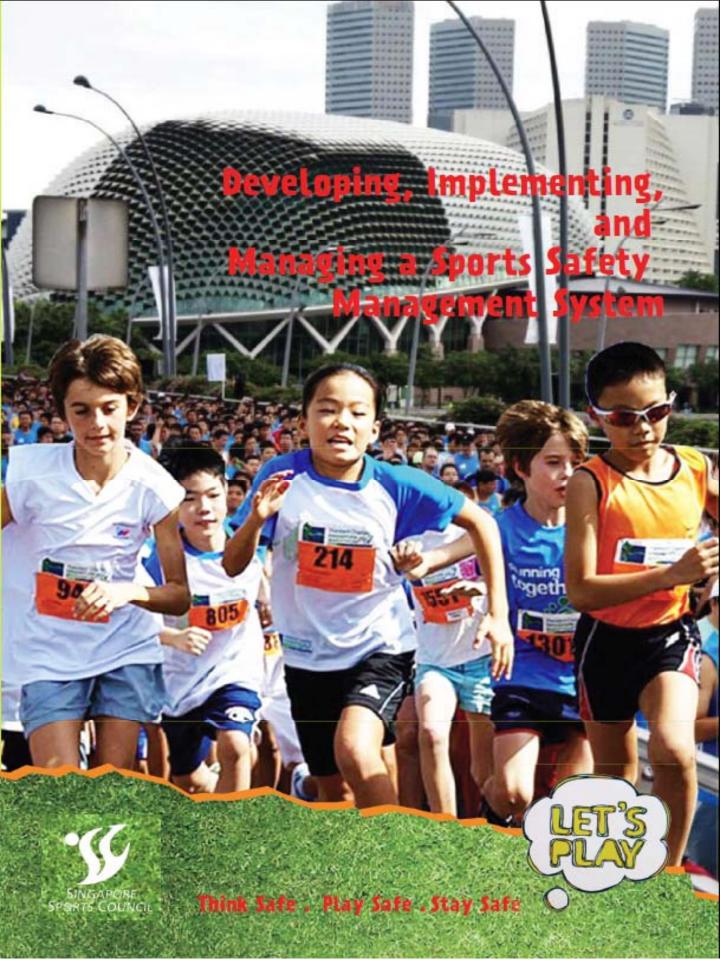
- 1.1 As part of the continuous enhancement to safe participation in sports, it was recommended that a safety framework be formulated to assist the National Sporting Associations (NSAs) to craft and implement their respective safety guidelines and management system. This is paramount to the promotion of sports safety across the different sports, maintaining a high safety standard and ensuring consistencies.
- 1.2 All accidents are preventable. Most accidents and incidents result from human error. However, human error is only one of the links that leads to an accident. Accidents will not be prevented by changing people but can be prevented when the underlying causal factors are addressed.
- 1.3 By adopting a safety management system, processes are kept consistent, thus assisting people to minimize risk and constantly review and check against the standard safety guideline.
- This guidebook provides a broad framework to assist respective NSAs to formulate a safety system to enhance their safety network for the associations, committee members, staff, volunteers, coaches, athletes and participants. It also could assist in better planning for programmes, events, projects and training under the association. This content is not exhaustive and individual associations should include any other safety information and/or best practices into their Sports Safety Management System.
- 1.5 The scope and complexity of the safety management system may vary significantly for different associations, depending on the size and nature of their sports. This could be a simple exercise for some but they should nonetheless take how to audit the safety management system to ensure its effectiveness.



This guidebook is issued free of charge for the National Sporting Associations (NSAs) and can be obtained from the Singapore Sports Council (SSC).







2. DEVELOPING, IMPLEMENTING AND MAINTAINING A SPORTS SAFETY MANAGEMENT SYSTEM

- 2.1 What is a Sports Safety Management System?
- 2.1.1 In this guidebook, "Sports Safety Management" means the management committee's functions connected with the carrying on of the association that relates to the safety of committee members, staff, volunteers, coaches, athletes and participants, including:
 - (a) the planning, developing, organizing and implementing of a sports safety policy; and
 - (b) the measuring or auditing of the performance of those functions.
- 2.1.2 "Sports Safety Management System" means a system that provides safety management in the association. This section introduces the basic principle and methodology in the development, implementation and maintenance of a safety management system that contains the following elements:
 - (a) Safety policy that states the safety commitment of the sporting association;
 - (b) Structure to assure implementation of the commitment to sports safety;
 - (c) Training to equip personnel with knowledge to ensure sports safety;
 - (d) In-house safety rules to provide instruction for achieving safety management objectives;

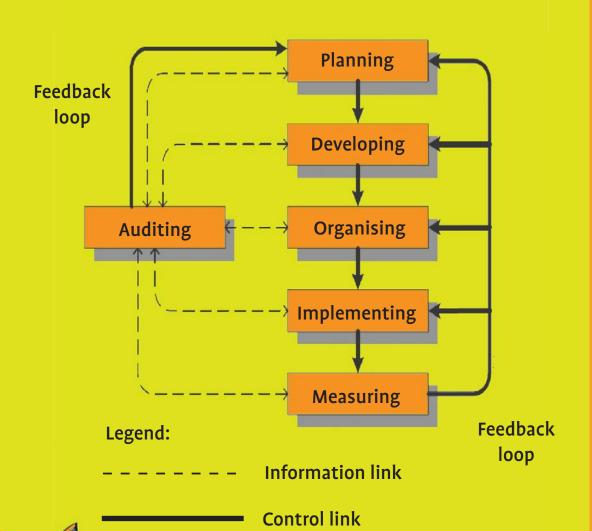




- (e) Inspection to identify hazardous conditions and for the rectification of any such conditions at regular intervals or as appropriate;
- (f) Identify hazardous exposure or the risk of such exposure to the management committee, staff, coaches, athletes and participants and to provide suitable personal protective equipment as a last resort where engineering control methods are not feasible;
- (g) Investigation of accidents or incidents to find out the case of any accident or incident and to develop prompt arrangement to prevent recurrence;
- (h) Emergency preparedness to develop, communicate and execute plans prescribing the effective management of emergency situations;
- (i) Evaluation, selection and control of sports service providers to ensure that they are fully aware of their safety obligations;
- (j) Safety Committees to identify, recommend and keep under review measures to improve the sports safety;
- (k) Evaluation of hazards or potential hazards and development of safety procedures;
- (I) Promotion, development and maintenance of sports safety awareness in the association;
- (m) Accident control and elimination of hazards before exposing committee members, staff, coaches, athletes and participants to any adverse environment; and



- (n) Protect committee members, staff, coaches, athletes and participants from hazards.
- 2.1.3 While practical guidance in respect of each of these elements is detailed in the next section, a model for the development, implementation and maintenance of a safety management system containing these elements is graphically illustrated as follows.
- 2.1.4 The flowchart below should be adopted not only in the development, implementation and maintenance of a safety management system, but also in the development, implementation and maintenance of each and every element constituting the system.



Think Safe. Play Safe. Stay Safe.



2.2 How to develop a safety management system?

2.2.1 The development of a safety management system involves the finer aspects of planning and developing.

2.2.2 Planning

Planning is the process of determining in advance what should be accomplished. The planning stage answers the questions "Where are we now?" and "Where do we want to be?".

- (a) At this stage, the association is required:
 - (i) to identify in advance what safety objectives should be accomplished by a safety management system;
 - (ii) to spell out a clear policy encompassing safety objectives and setting out their priorities and the ways and means to achieve them; and
 - (iii) to estimate the financial and other resource implications arising from the accomplishment of these safety and health objectives.
- (b) To achieve the identified safety objectives, the association should:
 - (i) conduct an initial status analysis to identify the existing arrangement for managing safety;
 - (ii) carry out risk assessments to decide on priorities and set objectives for hazard elimination and risk control and identify actions needed to eliminate and control the identified risks;
 - (iii) establish measurable performance standards for monitoring performance; and
 - (iv) conduct periodic status analysis for the safety management system in operation.





(c) It is important for an enterprise to conduct initial status analysis, periodic status analysis and risk assessment in the development of the sports safety management system.

Guidance on how they should be done is as follows:

(i) <u>Initial status Analysis</u>

In identifying the safety objectives for the first time, the association should consider carrying out an initial status analysis of existing arrangements for managing safety. This analysis should be made in order to provide information that will influence management committee's decisions on the scope, adequacy and implementation of the current system as well as providing a baseline from which progress can be measured. This initial status analysis should answer the question "Where are we now?" in respect of the particular element of the safety management system.

The initial status analysis should compare the existing arrangements with:

- the requirements of relevant legislation dealing with safety;
- the existing guidelines on safety management available within the association;
- the best practice and performance;
- the efficiency and effectiveness of existing resources devoted to safety management.

(ii) <u>Periodic Status Analysis</u>

After the initial status analysis, the association should ensure that a similar status analysis of the safety management system in operation is conducted the periodically to facilitate continual improvement. The scope and frequency of periodic status analysis should be defined, based on the needs of the vas associations. In particular,





the following items should be considered:

- the overall performance of the safety management system;
- the performance of individual elements of the safety management system;
- the findings/recommendations of safety audits; and
- the internal and external influences including the changes in structure, legislation and the introduction of new technology.

The analysis should also identify what action is necessary to remedy any deficiencies in the system.

(iii) Risk Assessment

Risk assessment should be carried out by a competent person with practical knowledge of the sports activities, yet with objectivity. He should tackle the assessment with an open mind and a critical approach. Basic steps in risk assessment should include the following:

- to classify sports activities: i.e. to prepare
 a list of sports activities covering people,
 equipment, environment and procedures,
 and gather information about them;
- to identify hazards: i.e. to identify all significant hazards relating to each sports activities and consider who might be harmed and how;
- to determine risk: i.e. to make a subjective estimation of risk associated with each each hazard assuming that planned or existing controls are in place, and also to consider place, the effectiveness of the controls and the consequences of their failure;



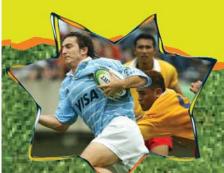
- to decide if risk is tolerable, which means that the risk has been reduced to the lowest level that is reasonably practicable: i.e. to judge whether or not existing safety precautions (if any) are sufficient to keep the hazard under control and meet legal requirements;
- to prepare risk elimination or control measures for risk that is intolerable and/or has no existing risk control measures.

It is generally not necessary to make precise numerical calculations of risk. Normally complex methods for quantified risk assessment should be required where the consequences of failure could be catastrophic. In general, simpler subjective methods would be appropriate.

2.2.3 Developing

Developing is the process of determining how the safety objectives should be realized. The developing stage needs to answer, "How do we get there?".

- (a) At this stage, the association is required:
 - (i) to define, document and endorse the policy, and ensure that the policy includes a commitment to:
 - provide adequate and appropriate resources to implement the policy;
 - place safety as one of the prime responsibilities of management committee;
 - ensure its understanding, implementation and maintenance at all levels in the association;
 - ensure involvement and consultation of all management committee members,





- staff, coaches, athletes and participants to gain commitment to the policy and its implementation;
- ensure carrying out periodic review of the policy and the management system; and
- ensure that everyone affiliated to the association at all levels receive appropriate training and are competent to carry out their duties and responsibilities.
- (ii) to prepare an effective safety plan which states in specific terms to:
 - set out a clear direction and devise a series of actions for the enterprise to follow so as to achieve the policy, in particular, the safety objectives and to establish and maintain a particular element of the safety management system; and
 - provide clear guidance for management committee, staff, coaches, athletes and participants to accomplish the safety and objectives.
- (b) To achieve the targets as stated above, the association should:
 - (i) develop an effective safety policy (details of which are discussed in the next section);
 - (ii) develop an effective safety plan as follows:
 - the system that allocates responsibilities
 for the carrying out a safety policy; and
 - the arrangements as to how the responsibilities are to be executed.





An effective safety plan should set out what is to be achieved in what time-scale and include:

- (i) a list of safety responsibilities for managing safety by everyone involved in the association;
- (ii) a list of hazards and the risk assessment results;
- (iii) the precautionary measures and the safety method statements to be adopted to eliminate or control the risks and the procedures for monitoring the compliance;
- (iv) the contingency plans for foreseeable emergencies;
- (v) training of management committee, staff, coaches, athletes and participants to carry out the actions for the association to follow so as to achieve the safety objectives; and
- (vi) the procedures for monitoring and assessing the implementation of these actions, etc.
- 2.2.4 The scope and complexity of the plan depend on the complexity of the sports association and its sports activities. It may range from a simple statement from the association identifying who is responsible for coordinating the various safety activities, to a detailed document covering the integration of the legislative and contractual responsibilities of training sites and service providers.
- 2.2.5 The safety plan should be modified, if necessary, as sports activities proceed according to experience and information received in the implementation of the plan.
- 2.2.6 The safety plan should be established by the key appointment holders in the management committee and should have members involved in a systematic and formal way, with the advice and assistance of safety personnel. All management committee, staff, coaches, athletes and participants should have input into the development of the plan.





- 2.2.7 Specific details and objectives should be provided to identify what will be done, who will do it, when will it be done, and what follow-up systems will be used to ensure the success of the plan.
- 2.2.8 All management committee, staff, coaches, athletes and participants should know the plan and the role they play in its implementation. Establishing an effective communication system within the association should help in this aspect.
- 2.3 How to implement a safety management system?
- 2.3.1 The implementation of a safety management system involves the finer aspects of organizing and implementing.

2.3.2 Organizing

Organizing is the process of prescribing formal relationships among people and resources in the organization to accomplish objectives. In this organizing stage, the association is required:

- (a) to ensure that sports safety is fully integrated across the association and into all its activities, whatever the size or nature of its sports activities;
- (b) to set aside an adequate budget commensurate with the association's size and nature for implementing the policy and to properly establish and maintain the elements of the safety management system;
- (c) to structure and properly operate the association to put the policy into practice effectively;
- (d) to define the allocation of safety responsibilities and accountabilities in the management structure;





- (e) to arrange organizational activities such as the formation and operation of a safety committee, a safety department/unit/group and the appointment of a safety officer/advisor/director, etc.;
- (f) to ensure that all management committee, staff, coaches, athletes and participants have the necessary authority to carry out their responsibilities;
- (g) to allocate a person for ensuring that the safety management system is properly implemented and performing to requirements in all locations and spheres of operation within the association;
- (h) to encourage the management committee to demonstrate, by example, their commitment by being actively involved in the continual improvement of safety performance;
- (i) to make arrangements for the effective and, where appropriate, open communication of safety information;
- (j) to make effective arrangements for the provision of specialist advice and services on sports safety;
- (k) to make effective arrangements for involvement at all levels, and consultation where appropriate; and
- (I) to identify the competencies required for the management committee, staff, coaches, athletes and participants at all levels within the association and arrange to organize any necessary training.





2.3.3 Implementing

Implementing means a process of carrying out or putting into practice the plans to achieve the desired objectives, with appropriate and adequate control to ensure proper performance in accordance with the plans. In this implementing stage, the association is required:

- (a) to determine and execute operation plans to control the risks identified and to meet the legal requirements as well as other requirements to which it subscribes to in safety management;
- (b) to execute contingency plans for foreseeable emergencies and mitigate their effects;
- (c) to arrange safety audits and periodic status analysis as an independent check to the efficiency, effectiveness, and reliability of the safety management system, and carry out the required corrective actions;
- (d) to motivate all management committee, staff, coaches, athletes and participants by a combination of rewards and sanctions and stress on the reinforcement of the positive behavior contributing to risk control and the promotion of a positive safety culture;
- (e) to provide adequate and effective supervision to ensure that the policies and the plans are effectively implemented; and
- (f) to prepare and maintain sufficient documentation to record and monitor the progress of policy and plan implementation.





2.4 How to maintain a safety management system?

2.4.1 Maintenance of a safety management system involves the finer aspects of measuring and auditing, through which the association knows whether its safety management system is working well or needs improvement, thereby maintaining the system in an efficient and effective state.

2.4.2 Measuring

Measuring is the process of checking the performance against agreed standards to reveal when and where improvement is needed, and a means of monitoring the extent to which policies and objectives are being met. The measuring stage provides a "feedback loop" to the stages of development and implementation of a safety management system and help in reinforcing and maintaining its ability to reduce risks to the fullest extent and to ensure the continued efficiency, effectiveness and reliability of the safety management system. In this measuring stage, the association is required:

- (a) to carry out the proactive monitoring of performance by, for example, surveillance and inspections of both hardware (i.e. premises, training sites etc) and software (i.e. people, procedures and systems of work), and monitor the degree of compliance with the safety arrangements of the association, which are made to achieve the policies and the safety objectives;
- (b) to use the safety performance of staff and coaches as a determinant in reward assessments in the association by closely monitoring the safety performance of individuals, particularly staff and coaches (i.e. to reward positive behavior according to the maxim of "What gets rewarded gets done");





- (c) to carry out reactive monitoring to assess the failures of risk control systems by, for example, the monitoring of accidents/incidents, near misses, and other deficiencies in safety performance;
- (d) to determine the immediate causes of deficient or substandard performance and identify the underlying causes and the implications for the design and operation of the safety management system and make recommendations to rectify any deficient or sub-standard situations in both (a) and (c) above;
- (e) to establish and execute valid and meaningful measuring tools for carrying out the proactive and reactive measuring of performance;
- (f) to continuously feed back information collected from (a), (c) and (d) above to the stages of development and implementation so as to improve the safety management system, such as arranging urgent action that needs to be taken for immediate and imminent risk which becomes apparent during proactive monitoring.

2.4.3 Auditing

Auditing is carried out to assess performance in addition to the routine monitoring of safety referred to in point 2.4.1 above. Auditing constitutes the "feedback loop" to the planning stage which enables the enterprise to reinforce, maintain and develop its ability to reduce risks to the fullest extent and to ensure the continued efficiency, effectiveness and reliability of the safety management system. In addition, there should be information flowing between the development, implementation and maintenance stages and the auditing stage so as to ensure the correct formulation and implementation of the safety management system. In the auditing stage, the association is required:



- (a) to appoint a safety auditor to periodically conduct a safety audit;
- (b) to provide facilities, etc to the safety auditor for the purpose of the safety audit;
- (c) to take necessary actions on the safety audit report submitted, including drawing up a plan for improvements to the safety management system and implementing the plan; and
- (d) to continuously feed back information on the conclusions of the safety audit to the stages of development and implementation to improve the safety management system.
- 2.5 Application of the management model to individual elements of a safety management system
- 2.5.1 The management model as described in point 2.1 should be used to develop, implement and maintain each and every elements of the safety management system. The association should apply the model to all elements of the safety management system applicable to the respective associations so as to exercise effective management of sports safety in the association.
- 2.5.2 For example, in order to develop, implement and maintain the element: "in-house safety rules to provide instruction for achieving safety management objectives" of a safety management system, the association should have a policy on the preparation, implementation, monitoring and reviewing of the "in-house safety rules". The association should first develop the policy, devise a plan and put it into practice. Also, the association should indicate his support by providing adequate resources (both human and financial) to implement the plan.



- 2.5.3 Furthermore, the association should set standards of performance regarding the implementation of the in-house safety rules for management committee, staff, coaches, athletes and participants at all levels, monitoring the compliance with in-house safety rules and measuring the performance according to the set standards.
- 2.5.4 Last but not least, the association should ensure a safety audit conducted periodically to check the effectiveness, efficiency and reliability of the policy, as appropriate, regarding this particular element. With the results of the measuring or auditing stage being fed back to the development and implementation stages, the overall performance of this particular element of the safety management system in operation can be improved. The association should document all information relating to the implementation and monitoring of the in-house rules and regulations for monitor or review purpose.
- 2.6 Application of the management model to safety audits
- 2.6.1 The management model as described in point 2.1 above should also be used as a framework for assessing the overall performance of a safety management system by way of conducting safety audits.
- 2.6.2 Safety audit should assess whether or not the processes as described in the management model have been successfully and effectively followed by the association to develop, implement and maintain a safety management system, including each of its elements. Besides, safety audit should assess whether or not a safety management system, including each of its elements, has been developed, implemented and maintained in a way conforms to the guidance set out in Section 3 of this guidebook.





- 2.6.3 In general, the following questions can be answered after the safety audit:
 - (a) "Has the association carried out effectively and efficiently the processes of planning, developing, organizing, implementing and measuring when the safety management system is developed, implemented and maintained as described in this Guide?"
 - (b) "Has the association developed, implemented and maintained the safety management system in an adequate and effective manner by conforming to the guidance set out in section 3 of this guidebook?".
- 2.6.4 If the answers to the above 2 questions are not satisfactory or negative, further improvements to the safety management system in operation is necessary.



