SCOPE

1. Introduction
2. Definition
   - Hazards, Risk
3. Risk Management
   - Principles, aims, purpose
   - Steps in Risk Management
   - HIRARC
4. Safety measure during scouting activities
5. Safety policy
6. Case Study
Introduction

- The world is a risky place.
- People face and assess risks every day (subconscious assessment)
- Man continuously introduces new hazards.
- Voluntary risk vs involuntary risk.
- Professional risk perception vs public risk perception.
- Excitement but not danger. Adventure but not hazards
When You Ignore Safety Hazards...

...You Ignore The Safety Of Others
AIM

1. To develop knowledge and understanding of safety management and apply this concept to a range of different context.

2. To develop ability to plan, manage and evaluate scouting activities in order to ensure the safety of participants.
DEFINITION OF HAZARDS

- Hazards - anything then can cause harm
- e.g slip and fall, drowning, falling object, falling from height, fire, wild animal
DEFINITION OF HAZARDS

➢ Is a condition, event or circumstances that could lead to or contribute to an unpleasant or undesired event.
TYPES OF HAZARDS

- Biological
- Chemical
- Physical
- Ergonomic
- Psycho-Social
COMMON HAZARDS

**Falls** – including falling objects, people falling from height or slips and trips

**Electricity** – Electrical current or lighting

**Manual handling** – overexertion or repetitive movement

**Machinery and equipment** – being hit, hitting objects, being caught in or between machinery or equipment

**Hazardous substances** - acid, hydrocarbons, asbestos etc.

**Radiation** – ionizing radiation, microwaves, lasers, ultraviolet light, welding arc flashes

**Biological agents** – bacteria, viruses, fungi, insects etc.

**Psychological stress** - intimidation, violence, conflict or time pressure.
TYPES OF HAZARDS

- Dull
- COLD
- Noise
- Electrical
- Tipping hazards
- Repetitive tasks
- Viruses
- Ventilation
- SHIFT WORK
- KNIVES
- Lifting
- TOXIC VEHICLES
- Personal safety
- Detergents
- Chemicals
- Excess hours of work
- Lighting
- Gases
- Stress
- Pressure
- Insects
When safety is first, you last.

~ Unknown
HOUSE OF HAZARDS

Keep electrical appliances safely away from sources of water.

Use a screen to contain fireplace sparks and keep all flammable materials a safe distance away.

Test smoke alarms monthly and replace batteries twice a year.

Never leave burning candles unattended by an adult.

Get rid of stored newspapers and other trash which could start or spread a fire more quickly.

Never store highly flammable liquids, like paint thinner or gasoline, inside your home.

Never smoke in bed. Matches and lighters should be stored safely out of children’s reach.

Don’t overload electrical outlets.
DEFINITION OF RISK

- Likelihood of harm or undesired event occurring, and the consequences of its occurrence.
- The chance that someone will be harmed by a hazard

\[
\text{Risk} = \text{Likelihood} \times \text{Severity}
\]
DEFINITION OF RISK

RISK = likelihood X severity

- Likelihood (probability of occurrence)
  - An event likely to occur within specific period or in specified circumstances.

- Severity (of outcome)
  - Is outcome from an event, such as severity of injury/health of people or damage to property or environment.
Risk = Likelihood \times severity
RISK MANAGEMENT

Overall process of identification of hazards, assessment of risks, and prioritization of risks followed by application of resources to eliminate, minimize, monitor, and control the probability and/or impact of unfortunate events.
DEFINITION OF RISK MANAGEMENT

- The process of analyzing exposure to risk and determining how to best handle such exposure.
- The process of assessing risk and acting in such a manner or prescribing policies and procedures, so as to minimize loss associated with such risk.
3 CAUSES OF ACCIDENTS ARE

• I DIDN’T THINK
• I DIDN’T SEE
• I DIDN’T KNOW

George was unaware of the pot-holes in the road ahead!
PRINCIPLES OF RISK MANAGEMENT

- Create value
- Integral part of organizational processes
- Part of decision making
- Address uncertainty
- Systematic and structured
- Based on best available information
- Tailored to activities
- Take into account human factors
- Transparent and inclusive
- Dynamic, iterative and responsive to change
- Continual improvement and enhancement
Aim of Risk Management

- Aim of Risk Management is to identify, assess, control and reduce risk.
Purpose of Risk Management

- Purpose of Risk Management is to enhance SAFETY of the sports and HEALTH of the person involved.
- Prevent or reduce accidents.
Risk Management Process (HIRARC)

- Hazard Identification
- Risk Assessment
- Risk Control
Safety is a cheap and effective insurance policy

~Author Unknown
Process of HIRARC

1. Classify work activities
2. Identify hazards
3. Conduct risk assessment (likelihood X severity)
4. Decide if risk is tolerable, apply control measures
System Safety Process

Define Objectives

System Descriptions

Hazard Identification: Identify Hazards and Consequences

Risk Analysis: Analyze Hazards and Identify Risks

Risk Assessment: Consolidate and Prioritize Risks

Decision-Making: Develop an Action Plan

Validation of Control: Evaluate Results for Further Action

Modify System/ Process

Risk Management

Documentation

System/ Process Review
STEPS IN RISK MANAGEMENT

Step 1
• Hazard Identification

Step 2
• Risk Assessment

Step 3
• Risk Control

Step 4
• Monitor and review
Hazard Identification

- Inspections (Procedure & checklists)
- Reviewing injury and incident data including near misses.
- Investigating complaints and incidents.
- Conducting safety audits.
- Monitoring activities/ environment.
- Observing SOP.
- Hazard Report.
- etc
CAN YOU IDENTIFY THE HAZARDS?
CAMP SITE
CAN YOU IDENTIFY THE HAZARDS?
Step 2

- **Risk Assessment**

- Overall process of estimating the magnitude of risk, and deciding whether or not the risk is tolerable or acceptable, taking into account any safety measures already in place.
  
  e.g by wearing life jacket, safety harness
CAN YOU TAKE THE RISK?
Why Risk Assessment?

- To assess and characterize the potential risk posed by an existing or new hazard.
- To provide the basis for valid decision on control measures.
- To formulate & update occupational health standards/ Standard Operating Procedure.
- To communicate potential hazards to policy makers.
- To minimize future health/ injury risks and costs.
## RISK ASSESSMENT MATRIX

<table>
<thead>
<tr>
<th>Likelihood (L)</th>
<th>Severity (S)</th>
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- **High** (Red)
- **Medium** (Yellow)
- **Low** (Green)
Step 3

• Risk Control

• Risks assessed, action taken to control risk.

• Control measures implemented according to HIERARCHY OF CONTROL.

• Most effective action is to eliminate risk.

• Not all strategies practicable and a combination may be needed to achieve best protection.
HIERARCHY OF CONTROLS:

a. Elimination
b. Substitution
c. Isolation
d. Engineering controls
e. Administrative controls
f. Personal Protective Equipment (PPE)
What to do with identified risk?

- Accept
- Retain
- Transference
- Mitigate
- Control
- Prevent
- Avoid
EXISTING CONTROL MEASURES

- Standard operating procedures
- Code of practice
- Workplace instruction
- Training and supervision
- Control access
- Water safety
- Road safety
- Fire safety
SYSTEMS AND PROCEDURES
ROPE SAFETY

SLIP REEF.
for tying up brailings etc.

BEGGARMAN'S KNOT.
for hanging up jars etc.

CLOVE HITCH.

ROUND TURN AND TWO HALF HITCHES
both these are useful for gadgets.

SHEEPSHANK
used for shortening rope (ie. guy lines etc.)

HIGHWAYMAN'S HITCH
for releasing rope after climbing etc.
Step 4

- Monitor and review
  - Control measures must be monitored and reviewed to ensure effectiveness.
  - Practice, experience and actual loss will necessitate changes.
  - Control measures should be updated periodically.
DURING AN ACTIVITY – MONITOR CONTINUOUSLY
SAFETY MEASURES DURING OUTDOOR ACTIVITIES
CAMPING ACTIVITIES
PRINCIPLES OF PREVENTION AND CONTROL

1. **ANTICIPATION** – expecting dangerous situation before they occur

2. **HAZARDS IDENTIFICATION** – e.g. by safety audits, accident report, MSDS

3. **RISK ASSESSMENT**

4. **RISK CONTROL**
FIVE STEPS TO RISK ASSESSMENT

1. Look for the hazards.
2. Who could be harmed and how?
3. Evaluate the risk and take precautionary measures.
4. Record your findings.
5. Review and revise your assessment.
<table>
<thead>
<tr>
<th>HAZARD</th>
<th>WHO MIGHT BE HARMED?</th>
<th>IS THE RISK ADEQUATELY CONTROLLED, OR IS MORE NEEDED?</th>
<th>REVIEW AND REVISION</th>
</tr>
</thead>
</table>
| Water (ie. Drowning) | All involved | 1. Swim checks prior to activity.  
2. Wear appropriately fitting buoyancy aids.  
| Slipping hazards: access to and egress from the canal. | All involved | 1. Warning participants of slippery conditions.  
2. Warning signs.  
3. Supervision at entry and egress. | |
| Striking head on canal bottom, sides or canoes. | Instructors and participants | 1. Protective equipment  
2. Deep water area.  
3. Pre-exercise briefing | |
PRE-EVENT CHECKLIST

- Parental Permission
- Safe from harm
- Home contact
- Insurance
- Transport
ACTIVITY

Has the activity been planned so that all members of the group – even the weakest are capable completing it?
LEADER’S PREPARATIONS

Do I have:

- Authorisation appropriate to the activity.
- Additional leadership appropriate to the size.
- Appropriate clothing and personal equipment.
- Confidence in my own skills, appropriate to the activity planned.
- A knowledge of the area to be visited?
- All round plan for the activity - with escape routes?
- A home contact.
- A driver.
- Confidence that I can cope in an emergency?
WEATHER FORECAST

Forecast weather conditions will not affect the proposed activity?.
PARTY MEMBERS

Has everyone:

- Appropriate clothing, personal equipment and food/drink for the activity?
- Sufficient, appropriate activity equipment?
- Adequate emergency items/equipment (plus food)?
- Training, knowledge and skill appropriate to the planned activity?
- The physical stature and fitness/stamina appropriate to the planned activity?
- Been assessed as capable of completing the activity?
ADVENTUROUS ACTIVITIES - A PRE-ACTIVITY CHECK-LIST

ACTIVITY
Has the activity been planned so that all members of the group - even the weakest are capable completing it?

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- The physical stature and fitness/stamina appropriate to the planned activity?
- Been assessed as capable of completing the activity?

YES
NO
RECONSIDER
YES
RECONSIDER
YES
YES
RECONSIDER
YES
NO
RECONSIDER
YES
NO
RECONSIDER
YES
NO
RECONSIDER
YES
DURING AN ACTIVITY – TO MONITOR CONTINUOUSLY

ROUTE FINDING
- is the ease of route finding as anticipated?

MORALE
- is the feedback such that everyone is happy?

PROGRESS
- is progress in accord with original (timed) plans?

EFFECTS OF WEATHER
- are all members dry, comfortable and unaffected by any extremes of temperature (too hot or too cold)?

INDIVIDUALS
- is everyone keeping-up: together?

FOOD AND DRINK
- is there sufficient food and drink remaining?

TIREDNESS
- is everyone coping with the 'physical' demands?

WEATHER CONDITIONS
- have changes to the weather conditions enabled you to keep to your original (timed) plans?

If the answer to any question is NO then it is time to consider your plans for the activity and modify accordingly.
SPECIFIC ACTIVITIES

Caving and mine exploration  Mountaineering  Abseiling
Water activities  Parachuting  Jungle Tracking
SPECIFIC REQUIREMENTS FOR SPECIAL EVENTS

- Carry out a written risk assessment
- Get district Commissioner’s Approval
- Visit Prospective Site
- Plan Outline Programme
- Train leader in charge
- Plan emergency arrangements