

Jabatan Kesihatan Negeri Johor
Bahagian Kesihatan Awam

CONCEPT OF RISK

THE CONCEPT

- ❖ The essence of risk management is to avoid high risk, manage medium risks, and live with low risks.
- ❖ The process of analyzing exposure to risk and determining the best control measures to handle such exposure.
- ❖ Risk is uncertainty of outcome.
- ❖ Risk management is an integral part of performing OSH.
- ❖ Risk management is the Critical Success Factor (CSF) in OSH

RISK

- ▶ Risk can be defined as the combination of the probability of an event and consequences (ISO / IEC Guide 73)
- ▶ In the safety field, it is generally recognised the consequences are only negative and therefore the management of safety risk is focused on prevention and mitigation of harm.

Risk management

- Risk management is a central part of any organisation's strategic management.
- It is the process whereby organisation methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities.

Risk management

- ▶ Risk management should be a continuous.
- It should address methodically all the risks surrounding the organisation's.
- It must be integrated into culture of the organisation.
- It must translate the strategy into tactical and operational objectives, assigning responsibility throughout the organisation.

Risk management

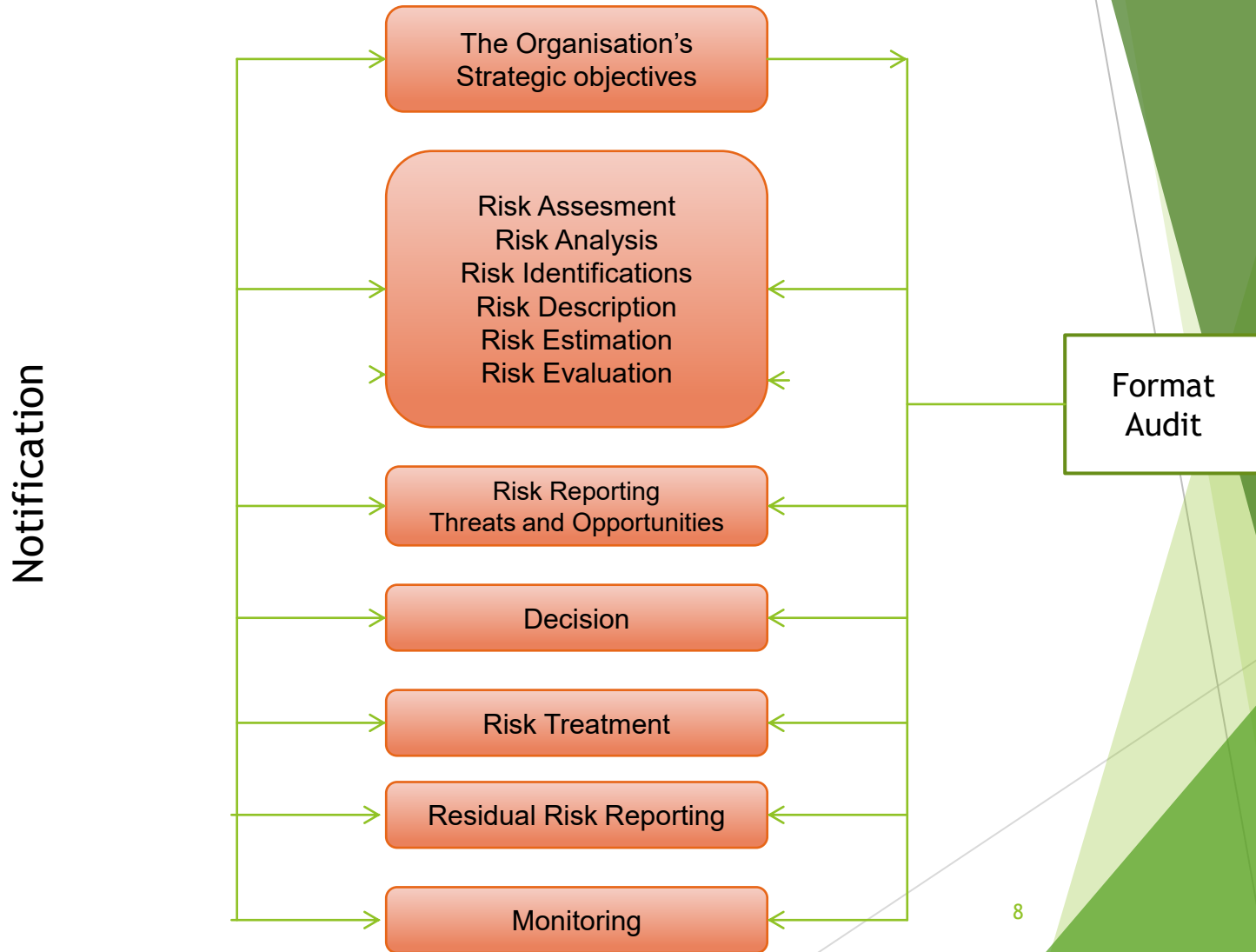
- ❑ It supports accountability, performance measurement and reward.
- ❑ The risks facing an organisation and its operations can result from factors both external and internal to the organisations.
- ❑ Key risks areas that shows specific risks can have both external and internal drivers.

Risk management

► Sensible risk management

- workers and the public are properly protected.
- benefit to society by balancing benefits and risks.
- enabling innovation and learning.
- have to exercise responsibility.
- is not creating a totally risk free society.
- is not scaring people by publicizing trivial risks.

The risk management process



THE RANGE OF RISKS

- ▶ The Range of Risks (Category of Harm)
 - ▶ Risks of injury
 - ▶ Risks of reputation
 - ▶ Risks of financial loss
 - ▶ Risks of loss of facilities
 - ▶ Risks of imprisonment

probability

- ▶ “Probability” has a precise statistical meaning.
- Alternative terms in risk guidelines to describe the uncertainty dimension.
 - frequency
 - likelihood
 - chance

Estimating vs measuring

- ❖ A further problem with assessing risk probability
- ❖ Risk does not have a real existence in the present.
- ❖ It is only possible to estimate what the risk might be.
- ❖ Not too difficult when considering the impact of the risk, but estimation of risk probability is much more problematic.
- ❖ Estimation of probability tends to be influenced by a wide range of subjective and unconscious sources of estimating bias, making it even less reliable.

Sources of estimating bias

- ▶ Perceptual factors.
 - familiarity
 - manageability
 - proximity
 - propinquity
- Heuristic (rule of thumb)

Alternative Approaches To Assess Risk Probability

- ▶ Probability exists on a spectrum from impossibility to certainty.
- ▶ Assessment of risk probability offer different ways of describing the scale.
 - defined using labels
 - phrases
 - odds
 - numbers
 - ranges

Definitional Techniques

- Definitional approaches are most commonly used by risk practitioners, but there are several issues affecting their effectiveness.
 - eg. both labels and phrases are ambiguous and can be interpreted subjectively.

Determining Likelihood

- ▶ There are two versions of likelihood :
 - a) Based on frequency of exposure, and/or number of people exposed.
 - b) Based on likelihood of incident during any exposure; case by case.

Determining Severity

- ▶ Severity is an estimate of how serious the injury or illness will be as a result of an accident.
- ▶ Severity in terms of harm to health, damage to property, damage to environment or any combination of these.

Determining Severity

Severity also measures the level of pain
to the organization. Examples:

- Financial : Loss or cost to repair
- Operational : Lost time, production or delivery
- Reputation : Loss of customer or consumer
- Competitive : Reduction of market advantage
- Regulatory : Legal liability







THANK YOU