

# Effective Risk Management and Preventing Emergencies



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1. Lifecycle of Risk

# Why are we different

- A fundamental part of who we are is that we live in a stable wet, temperate climate
- It creates a culture of complacency compared to Canadians and Australians
- Traditional values and methods of clearing land
- Coupled with an increasing level of commercialisation in of the forestry sector, the potential exists for both an increase consequence of wild fires

# Blurring of the lines

- People expect the Principle Response Agencies can fully deal with any adverse event
- When events become emergencies and then major emergencies, this is not always the case
- Important that stakeholders realise when controls are ignored risks will increase

# Attitudes to the Management of Emergencies

- National attitudes are influenced by a number of factors, these include
  - public perception of hazards
  - lack of education and understanding of risk
  - lack of Risk Management culture
- This topic is complicated by a public with continually changing perceptions driven mainly by the media.
- Iodine Tablets: The over reaction of the public to the Joe Jacob appearance on The RTE 1 radio show.
- Bird and Swine Flu, SARS

# Risk-Emergency-Major Emergency-Crisis

- Risk Management:

- Actions taken to reduce the probability of an event occurring or to mitigate its consequences.

- Emergency

- Unforeseen occurrence requiring action

- Major Emergency:

- Any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services, or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requiring the activation of specific additional procedures to ensure effective, co-ordinated response.

- Crisis

- A low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly.

# The Role of Risk Management

- Risk is an uncertain outcome that will impede an organisation or individual from achieving their objectives
- Aim of risk management is to use methods which can identify and control these uncertainties.
- Once a risk has been identified evaluate in order to compare with other risks and to prioritise any action which may be necessary to control it.
- Risk management is the process whereby threats to the organisation's or individual's strategies are managed.
- This takes the idea of risk management beyond considering pure risk alone to identifying the downside of management's strategies. Risk manager is the devil's advocate, showing top management what can go wrong with a particular plan and providing scenarios of the consequences.
- This means that the risk manager must look for threats to all aspects of the organisation's plan.

- Risk management has been seen to be a process consisting of the formulation and implementation of strategy for the function, the identification and evaluation of risk, the physical and financial control of risk and the monitoring of the programme.
- **Despite** the emphasis on the process, risk is also a state of mind, being aware of risks should permeate the culture of the organisation so that steps can be taken to identify and control any risks within the business environment which the organisation may face. This state of mind should be inculcated into the organisation during the implementation process.

# Risk Management

- System
  - Identify risk
  - Assess fully
  - Reduce probability and consequence
  - Accept the remaining risk
  - If it changes we go back and look at again
  
- Pharmachem sector
  - EHS, Quality and Financial
  - Driven by regulation
  - Culture
  - Potential catastrophic consequences
  - BCM and Share price

# Does it prevent all unplanned events?

- No
  - No such thing as ZERO risk
- Prevention ensures lower frequency
- Mitigation ensures lower consequence
  
- If this strategy doesn't work, we go back and look at it all over again.
- When a risk manager acts as a devil advocate, they ensure all scenarios, unwanted outcomes are brought to the table
- Once the risk is quantified, it comes down to resources
  - Pharmaceuticals-Chemicals–Farms-Roads-Banks-Trees

# Where does one start?

- At the beginning.
- Back to basics
- Know your business/ organisation and the environment it is operating in

Threats-Weaknesses- Opportunities- Strengths

# Systems and Approaches

- One fit does not fit all
- Important the model selected has the functionality to complete an effective process
- Which one?

# What are the Threats

## Natural disasters



Hurricane



Flood



Blizzard



Fire

## Technical failures



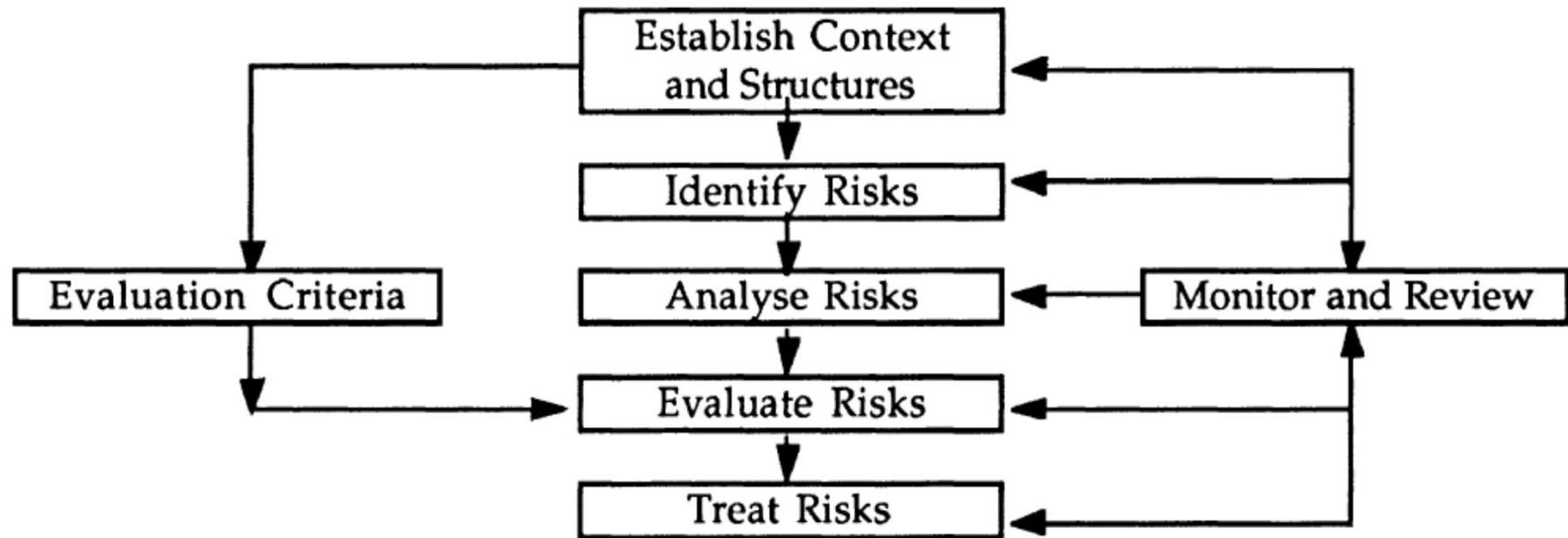
Power outage

## Human threats

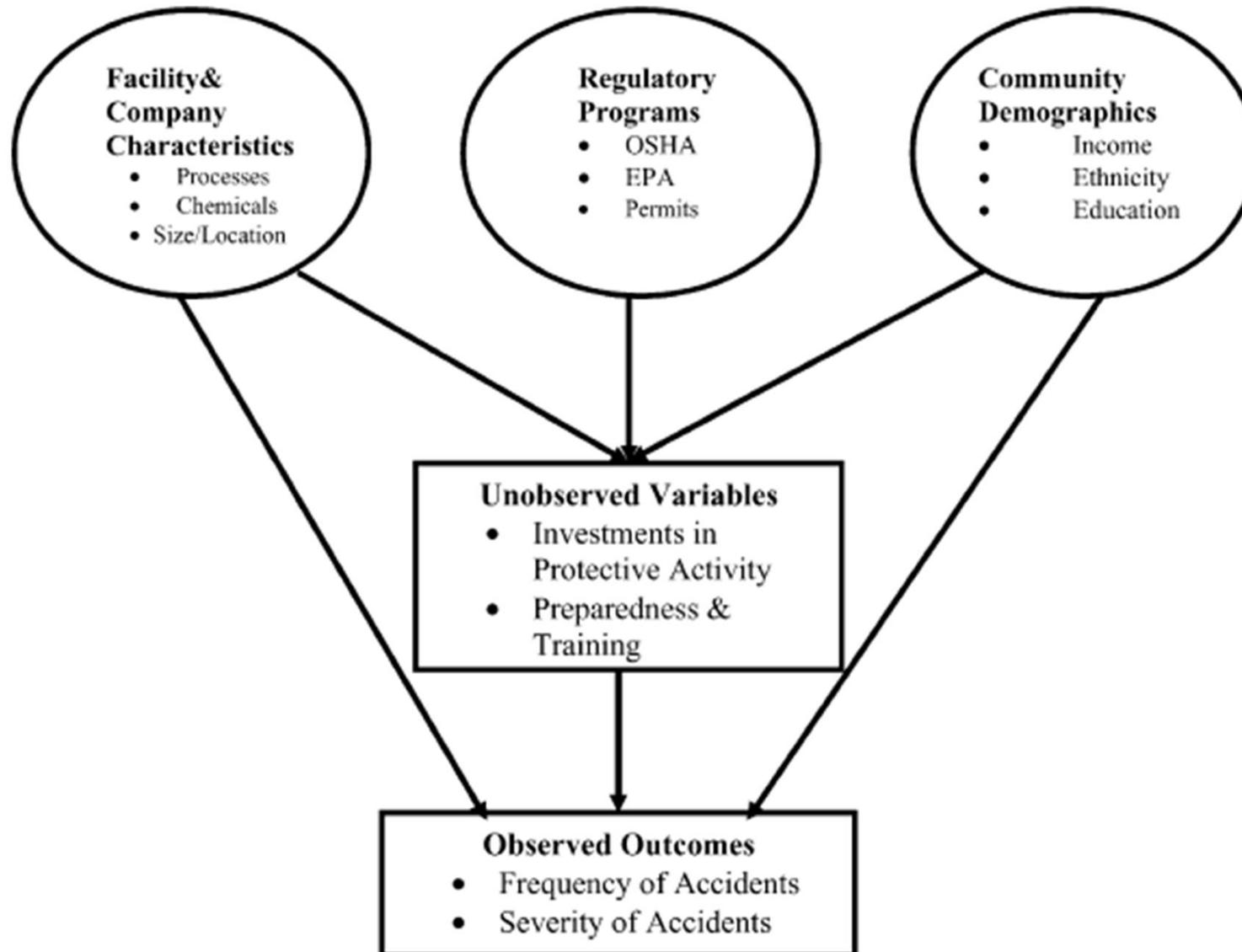


Vandalism

# Risk Management



# Drivers of Accident Prevention



# Systems Approach to Emergency Management

Five-Stage Emergency Management Paradigm



1. **Hazard Analysis/Risk Assessment**
2. **Mitigation/ Risk management**
3. **Planning and Preparedness**
4. **Delivering a Coordinated Response**
5. **Recovery**

# **Fink's Three-Stage Model to Crisis Management**

- 1. Identifying the crisis**
- 2. Isolating the crisis**
- 3. Managing the crisis**

# Prevention

- Basic core aim in risk management
- You can only prevent what is possible to prevent
- If you do not prevent, there is the potential for it to occur
- Effective prevention leads to positive outcomes and less negative outcomes

# Types of Risk Controls

- No-burn options. Landfills offer designated days when yard debris can be disposed of at little or no cost.
- Many "how to" publications and advice are available about composting. On-site chipping may be feasible. Limbs and other debris may be piled for wildlife habitat if located where it does not pose a wildfire hazard.
- Carelessly lit and tended campfires and smoking are another major concern throughout the burning season.
- Human carelessness. To help prevent fires in or near forest land during the forest fire season, the following steps should be followed:
- Check local regulations regarding permit requirements and "burn ban" restrictions. These are available from your municipality, fire department or department of natural resources. They may include:
  - Obtaining a burning permit for burning grass, brush, slash or other debris in or within a prescribed distance of forest land;
  - A campfire permit and the landowner's permission for an open campfire, cooking fire or bonfire in or near forest land;
  - A work permit for any work in forest land involving two or more people.

# Type of Controls

- Burn only natural vegetation or untreated wood products.
- Burn piles are at least 50 feet from structures and 500 feet from any forest slash.
- Clear the area around the burn pile of any flammable debris.
- Keep firefighting equipment handy - a connected water hose or at least five gallons of water and a shovel should be nearby.
- Don't burn if it's too windy to burn - if trees are swaying, flags are extended, or waves appear on open water.
- Be prepared to extinguish the fire if it becomes a nuisance.
- Attend the fire until it is completely out.
- Smoking should not be done while moving from one place to another in forest land. Make sure your butt is out - "dead out!"
- Power saws must have a proper muffler and be accompanied by a round point shovel or fire extinguisher.
- Cars, trucks and machinery must have proper exhaust systems when operated in or near forest land. Exhaust spark arresters are a requirement on certain machines.
- Know your local emergency telephone number if a fire becomes uncontrollable

# EU Funding at Civil Contingencies

- **Risks for Tourists**
- [www.ambienteitalia.itwww.eu-mirto.net](http://www.ambienteitalia.itwww.eu-mirto.net)
- Partners : IT + FR + GR + HR
- Aims at raising tourists' awareness towards forest fire risks and to improve their capacity to cope with emergency situations.
- The project MIRTO will lead an Information campaign during the summer 2010, broadcasting an information video on ferry boats to Mediterranean islands and distributing 2 handbooks to tourists on camp sites and holiday house occupants during summer.
- EC Contribution: €306.561
- Financing rate: 75%

# Crisis Communication Strategies

- Begin at Prevention and Planning
  - Specific Plans:
  - Education: Schools
  - Awareness: General public and adjacent landowners
  - Cultural change: Focus on consequence for both people and property
- Expands Emergency Phase
- Fully deployed during actual crisis

# Pre and Post

- Most post-exercise or incident debriefs suggest that communications could have been better.
- Organisational culture does not allow for good communications in 'peacetime', then they are unlikely to be any better in a crisis situation.

# Effective Emergency Management

Perry (2003) lists a number of components of Emergency Management and effective outcomes.

In particular for preparedness and response he highlights the importance of

- appropriate planning principles,
- accurate knowledge of the threat,
- necessary protective equipment and
- adequate resourcing by the state.

Failure to allocate resources to Emergency Management will invariably increase the risk to us all.

[http://www.coillte.ie/coillteforest/operations/forest\\_protection/](http://www.coillte.ie/coillteforest/operations/forest_protection/)

- We are all familiar with spectacular wildfires in California, Southern France or the Australian outback. Thankfully, forest fires, which occur in Ireland tend to be on a much smaller scale. Forest fires can occur where vegetation is being burned on land adjoining the forest to improve grazing and spreads out of control. Also they can be caused by carelessness discarding of cigarettes and matches by forest visitors or lighting fires within the forest, which is forbidden.
- Coillte has a comprehensive fire and emergency plan in operation for every forest which includes the construction of fire breaks, operation of fire patrols, communication with fire brigade services, provision of specialised equipment in high risk areas and use of helicopters in fire-fighting. Coillte greatly appreciates the cooperation which it receives from neighbours and the fire services in combating forest fires.

- <http://www.efi.fi/>
- <http://www.coillte.ie/>
- [http://www.iffpa.ie/Sectors/IFFPA/IFFPA.nsf/Search?OpenForm&Query=wild fires](http://www.iffpa.ie/Sectors/IFFPA/IFFPA.nsf/Search?OpenForm&Query=wild%20fires)  
Journal of Hazardous Materials 115 (2004) 9–16
- Journal of Business Continuity & Emergency Planning Vol. 3 No. 1, pp. 31–37
- Framework for Major emergency Management

**QUESTIONS?**