FAO Policy Learning Programme 2009

Risk Analysis and Contingency Planning

In the context of policy & decision making
Risk Analysis and Contingency Planning

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About EASYPol

The EASYPol home page is available at: www.fao.org/easypol

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Objectives

- Define risk analysis and its application
- Outline the key components of risk analysis and provide a brief overview of the risk analysis process
- Identify key players in risk analysis process
- Risk analysis principles
Introduction

What is Risk Analysis?

- A process performed to understand the nature of unwanted, negative consequences to health; and to

- identify and consider the options for preventing or minimising the negative consequences.
A HAZARD is...

- A biological, chemical or physical agent with the potential to cause an adverse health effect.

RISK is

- The likelihood (probability) *i.e. how likely is it to happen?* and

- the impact on health *i.e. how severe?*

RISK = Probability x Severity
Components of Risk Analysis

I. Risk Assessment

II. Risk Management

III. Risk Communication
Risk Analysis Framework

- **Risk Assessment**
  - Science-based

- **Risk Management**
  - Policy-based

- **Risk Communication**
  - Interactive exchange of information and opinions concerning risks
I. Risk Assessment

- A scientific process (in the context of health) – consists of 4 steps:
1. Identify the Hazard
2. Describe the Hazard (characterisation)

E.g for bacteria
- growth requirements/characteristics
- mode of transmission
- host range
- vulnerabilities
- survival
3. Assess exposure

i.e. the degree of intake or contact likely to occur
4. Describe the risk - (characterisation)

i.e what is the most likely health impact for the population?
II. Risk Management

Involves considering policy options to accept, minimise or reduce risks and to select and implement appropriate options.
Examples of Risk Management Options (RMOs)

- Culling & burning
- Quarantine
- Decontamination
- Restricted zones
- Vaccination
- Vehicle disinfection
Question:

“Are there any other RMOs to control animal diseases?”
III. Risk Communication

- Interactive information exchange among risk assessors, risk managers and other stakeholders.

- An integral and ongoing part of all stages of risk analysis.

- Should be agreed between risk assessors and managers early in the process.
Risk Communication Strategy

Question: Who presents information to the public (i.e. who do the public trust, how should it will be done?)

- Consider ‘risk perceptions’
Summary – risk analysis

- A process made up of 3 components – risk assessment, risk management & risk communication;
- Helps to identify risks and to analyse RMOs;
- Risk communication - an interactive process, requires a strategy.
Contingency Planning

Biosecurity module – contingency planning
Contingency Planning (defined)

The development and maintenance of a framework for responding to suspected and confirmed incidences with significant consequences for public health, safety or welfare e.g. outbreak of exotic human, plant disease or serious food contamination.

Includes the arrangements, structures, systems, and individual and group responsibilities.
Outline

1. Contingency planning – aims and context
2. Contingency Planning or Emergency Preparedness
3. A Contingency Plan framework
4. Contingency Planning – Organization
5. Alert Levels
1. Contingency Planning - Aims:

- Protect human, animal and plant health;
- Minimise economic loss e.g. the number of animals which need to be culled either to control the disease or on welfare grounds;
- Minimise the disruption of the food supply chain, and related industries;
- Protect livelihoods;
- Minimise damage to the environment.
1. Contingency Planning - context

Part of wider prevention measures, including:

- improved surveillance of animal disease, preventing illegal movement of animals, plants or food;
- improved bio-security in farms and markets, and;
- general education and raising awareness – for farmers and the rural community on measures to improve farm hygiene and bio-security to reduce the risk of disease.
2. Contingency Planning or Emergency Preparedness

Part of emergency planning. Intended to ensure;

- Capability to initiate and take appropriate/timely actions to support the response.
- the right institutions/organisations and stakeholders are notified, briefed, and engaged to respond.
3. A Contingency Plan framework

1. IMPACT Assessment
2. Develop Plan
3. Testing
4. Training
5. Maintenance
6. Review
4. Contingency Planning - Organization

Approaches may vary but a clear structure helps to ensure:

- effective coordination;
- efficient response;
- clear communication lines;
- clear understanding of roles and responsibilities;
- decisions made at the right level - and communicated efficiently.
Typical Multi-Level Command & Response Structure

- STRATEGIC
  - TACTICAL
    - Operational
      - Forward Ops Base (FOB)
    - Operational
  - TACTICAL
    - Operational
    - Operational
    - Operational
FAO Crisis Management Centre (Animal Health) Organisation Structure

CMC Manager
- Deputy CMC Manager
  - CMC Admin Assistant
  - CMC Communications Officer
    - CMC Planning (Surveillance) Manager
      - Situation reporting Officer (*)
      - Disease Intelligence Officer (*)
    - CMC Operations (Response) Manager
      - CMC Operations Coordinator
      - Mission deployment officer
      - CMC rapid deployment technical team (*)
      - CMC rapid deployment operations team (*)
    - CMC Logistics Officer
      - ICT officer
      - Procurement officer
    - CMC Finance & Admin Officer
      - Budget clerk
      - Operations clerk (*)

note: the structure can accommodate growth depending on the nature of the demand for CMC services in the areas indicated (*)

= veterinary profile
= general operations
= communication
= administration
4. Organisation (cont’d)

Strategic Level
Provides:
- overall strategic oversight
- direction to the tactical level responses teams
- a forum to review strategies (in a wider Government context)
  - e.g. a Civil Contingencies Committee (CCC) – involving all relevant departments,

Tactical Level
- Translates advice from strategic level into practical instructions for operational personnel;
- Advice and coordination for those dealing with the incidence at local level.
4. Organisation (cont’d)

Operational level

- implement prevention and control/prevention measures in accordance with tactical level advice and guidance;

- report on the progress of the incidence and the control measures to the Tactical level.
5. Alert Levels

Alert levels are useful:

- Different approaches but same objective;
- Each level clearly defined;
- Helps ensure appropriate response and resources;
- To rationalize use of resources;
- Decisions to escalate, downgrade or stand-down the response - based on clear criteria and evidence;
Summary – contingency planning

- An essential part of risk management
- Supports emergency preparedness and response
- Aims to protect human, animal and plant health; to minimise disruption of the food chain and food supplies, protect livelihoods, damage to the environments ..etc
- Approaches vary but a structured approach is preferable;
- Alert levels help ensure appropriate response and resource levels are deployed.
Further readings

- Risk Management and food safety – WHO/FAO