

Module 29

Veterinary Disaster Management



The material in this module was created by the **World Animal Protection** in 2012 with updates from Dr Caroline Hewson.

Free online resources

To get free updates and additional materials, please go to www.animalmosaic.org/education/tertiary-education/

Why do vets need to learn about disaster management? 1

We have a professional duty of care to animals because they are sentient

- Injuries, disease, hunger and dehydration

communities will look to us for help (Pennell & Paik, 2009)

- They do this because animals are a very significant part of many people's lives, for livelihood and companionship

Because our clients and

Why do vets need to learn about disaster management? 2

Because vets are needed

- ❖ As key personnel, e.g. organising, etc.
- ❖ As ad hoc experts
- ❖ To help protect public health – zoonoses

We have a professional duty of care to animals because they are sentient



This module will teach you

What a disaster is

Why it is essential to save animals in a disaster

❖ **Why sometimes animals are not saved**

How disasters should be managed

What your role is, as a vet

The definition of a ‘disaster’

“A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources”

(United Nations, 2009)



What is a 'disaster'?

A combination of elements from this three-point framework (UN, 2009)

⌘ **Hazards:**

- ⌘ any danger that may cause loss of life, injury, property damage, social and economic disruption, or environmental damage
- ⌘ natural, e.g. earthquake, hurricane
- ⌘ technological, e.g. chemical spill, nuclear radiation

⌘ **Vulnerability**

- ⌘ **Insufficient capacity to cope with negative consequences**

Examples

Tornado, India (WSPA, 2009)

Freezing weather and landslides, Bolivia
(WSPA, 2011)

Forest fire, USA (Pennell & Paik, 2009)



Another way of looking at disasters

Outcome measures (Campbell & Knowles, 2011)

- ❖ **10 or more people reported killed**
- ❖ **100 or more people reported affected**
- ❖ **The declaration of a state of emergency**
- ❖ **A call for international assistance**

Types of 'disaster' (Campbell & Knowles, 2011)

**Rapid onset: e.g. earthquakes, tsunamis,
hurricanes, floods**

Slow onset: e.g. unusually harsh winters, drought

'Complex emergency': conflict / war



Why it's important to save animals in a disaster

Because they are sentient

- ❖ Important to prevent and relieve injury, pain, hunger, etc.
- ❖ Categories of animals
 - ❖ Livestock, working animals, companion animals
 - ❖ Animals in shelters
 - ❖ Animals in zoos and laboratories
 - ❖ In-patients at veterinary clinics



Why save livestock and working animals?

In low-income countries

- ❖ They are needed for agriculture, food and transport
- ❖ ~25 per cent of global poor keep livestock (~0.7 billion people) (FAO, 2003)
- ❖ Integral part of jobs, economy, food security, physical security, health and culture (Campbell & Knowles, 2011)
- ❖ Disasters = economic loss and debt spiral



Saving livestock is important

Example: Cyclone Nargis, Myanmar, 2008 (WSPA, 2009b)

- ✦ It is estimated that 50 per cent of farm animals were lost, including:
- ✦ 66,000 swine
- ✦ 1,134,000 poultry
- ✦ 498,000 ducks
- ✦ 6,999 goats
- ✦ 227,268 cattle and buffalo (including approximately 61,000 working pairs)



Why include livestock and working animals in disaster plans?

If animals are not included in planning

- ❖ Here will be no food for them ⇒ they will die
- ❖ Their owners may have no transport or source of income
- ❖ Increased journeys on foot leads to security implications
- ❖ Leads to longer stays in refugee camps



Why save companion animals? 1

They provide support and comfort for owners

Owners often refuse to evacuate without them
(Heath et al., 2001)

- ❖ **E.g. Mexico, Colombia, Costa Rica**
(Hesterberg et al., 2012)
- ❖ **One US county: ~10% of population**
(Columbia County, 2006)

Why save companion animals? 2

Displaced or abandoned animals – more strays

Diseases

Inhumane culling practices



Why animals are not included in disaster plans 1

Lack of human and financial resources for response and planning

Insufficient knowledge and skills

Unassigned responsibility

Lack of risk reduction projects



Why animals are not included in disaster plans 2

Authorities may not perceive animals as important

Authorities may be overwhelmed with humanitarian problems

Different attitudes to animals' capacity to suffer

Cultural attitudes regarding the value of some species, etc.

Humanitarian NGOs lack the skills and facilities to care for animals

Owners are not allowed to take their animals with them when they are evacuated

Other reasons why animals are not saved **1**

Livestock owners lack the resources required to be prepared

Logistical difficulties

Mistrust of authorities (Hothersall, 2012)

Philosophy: disaster as 'act of God', or fate (Hothersall, 2012)

Frequency of occurrence (Hothersall, 2012)

Role of vets

Other reasons why animals are not saved **2**

Pet owners are not prepared either, e.g.

- ❖ **No cat carriers (Heath et al., 2001)**
- ❖ **Pets not wearing identification (Destreza, 2007; Breton, 2010a)**

Culture, frequency of disaster, etc.



Other reasons why animals are not saved **3**

Nowhere to take them

Owner can't physically take them

Owner leaves them behind to guard property from looters

Owner thinks he/she will be able to return later to get them

Ownership' is loose: animal fed by community and tends to roam, so no one takes direct responsibility

Role of vet



Summary so far

What a disaster is

Why it is important to save animals in a disaster

✦ **Why animals are not saved**

How disasters should be managed

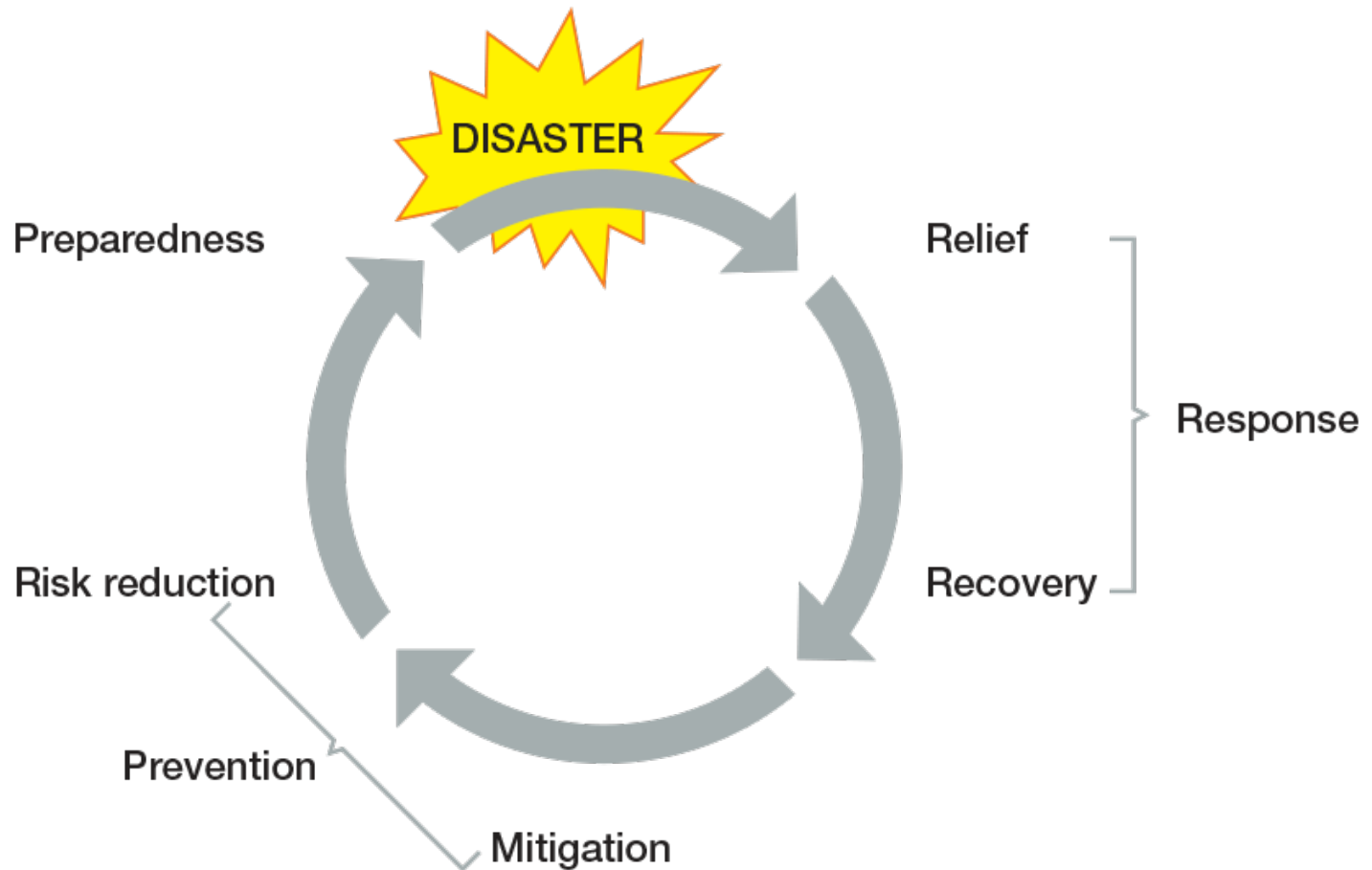
Disaster management

Preparing for disasters and responding to them

Strategies in

- ❖ **Prevention and mitigation**
- ❖ **Preparedness**
- ❖ **Response**
- ❖ **Recovery**

Disaster response cycle



Adapted from Alexander, D. (2002). *Principles of emergency planning and management*. Harpenden, UK: Terra Publishing

Mitigation

Measures to ensure that emergencies are prevented, or their effects made less severe

Structural measures

- ❖ **Housing animals away from flood plains**
- ❖ **Managing grazing**

Non-structural measures

- ❖ **Education programmes, e.g. advising owners about the risks of disasters**
- ❖ **Strengthening veterinary services (e.g. herd health management, epidemiology)**

Preparedness

Arrangements to ensure that, should a disaster occur, all the resources and services which may be needed to cope with the effects of a disaster can be rapidly mobilised and deployed, such as

- ❖ **National warning systems**
- ❖ **Vaccination programmes**
- ❖ **Animal shelters**
- ❖ **Evacuation methods**
- ❖ **Storage of food and water**
- ❖ **Animal identification**
- ❖ **Veterinary clinic preparedness plans**

Response

Actions taken in anticipation of, during and immediately after impact to ensure that the effects are minimised and that people are given immediate relief and support, such as

- ❖ **Static and mobile vet clinics**
- ❖ **Search and rescue operations**
- ❖ **Provision of emergency food**
- ❖ **Temporary shelters**
- ❖ **Reuniting owners with animals**

Recovery

Coordinated support of disaster-affected communities in

- ✦ **Reconstructing their physical infrastructure**
- ✦ **Restoring emotional, social, economic and physical wellbeing**

Examples

- ✦ **Veterinary care**
- ✦ **Risk reduction projects and contingency planning**

Summary so far

What a disaster is

Why it is important to save animals in a disaster

How disasters should be managed

Your role, as a vet

- ❖ **In response to a disaster**
- ❖ **In risk reduction and preparedness**

Vet' s role: response

Your priorities

- ⌘ You and your family/other people – life support
- ⌘ Staff and animals at your clinic/facility
– follow preparedness plan
- ⌘ Your community – Incident Command System

At your clinic/animal facility (Centonze, 2009; Breton, 2010b)

**Incident Command System:
staff roles, checklists, etc.**

**Where to board or relocate
the animals in your care**

Medical record back-up

**Continuity of operations – protocols
for high-risk patients; alternatives
for euthanasia, anaesthesia etc.**

Security

Insurance and legal issues

**Use of social media to interact with
other clinics and the public
(Merchant et al., 2011)**

Vet's role within an Incident Command System

Standard hierarchy of organisation

Overall commander

- ⌘ **Public information and safety**
- ⌘ Finances
- ⌘ Planning
- ⌘ Logistics
- ⌘ Operations

Being a responder – the importance of training

Incident Command System

Hazardous materials and decontamination

Public health issues and community education

Managing your emotional well-being

Human first aid/life support and initial care

Management and care of animals, e.g.

- **Use of ropes for large animals**
- **Mass vaccination**
- **Triage**
- **Euthanasia**

Vet's role: triage and decision-making

Triage (Wingfield & Upp, 2008)

- ⌘ Needs experience
- ⌘ Field triage
- ⌘ Medical triage

Recommendations should reflect norms of care in that community (Madigan & Dacre, 2009)

Different species

Vet's role: euthanasia and humane killing

Stray animals

Zoo and laboratory animals

Humane methods

Vet's role: where to get training 1

Online training modules, US Department of Agriculture (<http://awic.nal.usda.gov/research-animals/disaster-planning>)

LEGS (Livestock Emergencies Guidelines and Standards) courses, e.g. Africa, South America (www.livestock-emergency.net/wp-content/uploads/2012/01/LEGS-Training-Coordinator-Job-Description-06-Feb-20122.pdf)

Vet's role: where to get training 2

World Animal Protection: Course for Veterinary Emergency Response Units (VERU)

- ⌘ Organised group of veterinary students
- ⌘ Trained for rapid response
- ⌘ To benefit animals and community
livelihoods in disasters

The VERU's roles

To assist with emergency response, with other stakeholders

To help stabilise animal populations

To support veterinary response

To support communities and individuals

To assist in risk reduction programmes

To become leaders in the development of preparedness strategies

To promote awareness of animal welfare



Review

Your role, as a vet

- ❖ In response to a disaster
- ❖ In risk reduction and preparedness

Vet's role in risk reduction: nationally

Veterinary Emergency Response Units/ Animal Response Teams

Community-based projects

National planning/law – include animals

Collaboration with humanitarians

Resources and training – handbooks, lectures, courses

Demonstrations – drills

Public service announcements

Vet's role in risk reduction: locally

Advising owners

- ❖ Tags on collars and permanent ID
- ❖ Importance of cat carriers (Heath et al., 2001)
- ❖ Their preparedness plan

Clinic preparedness plan

Lobbying local authority to include animals

Conclusion

It is essential to save animals in disasters

Vets have a key role

They can only fulfil it if they are prepared

- ⌘ **Clinic plan**
- ⌘ **Participate in planning locally**

Self-care is also important

Training is essential

Feedback:

Please let us know what you think

- ❖ How have you used this module?
- ❖ What did you like about it?
- ❖ What did you not like?
- ❖ Do you have any tips to share?

Please take part in our 10 minute survey here:

<https://www.surveymonkey.com/s/BKP3D6H>

Your feedback will help other teachers like you

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Further Reading

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