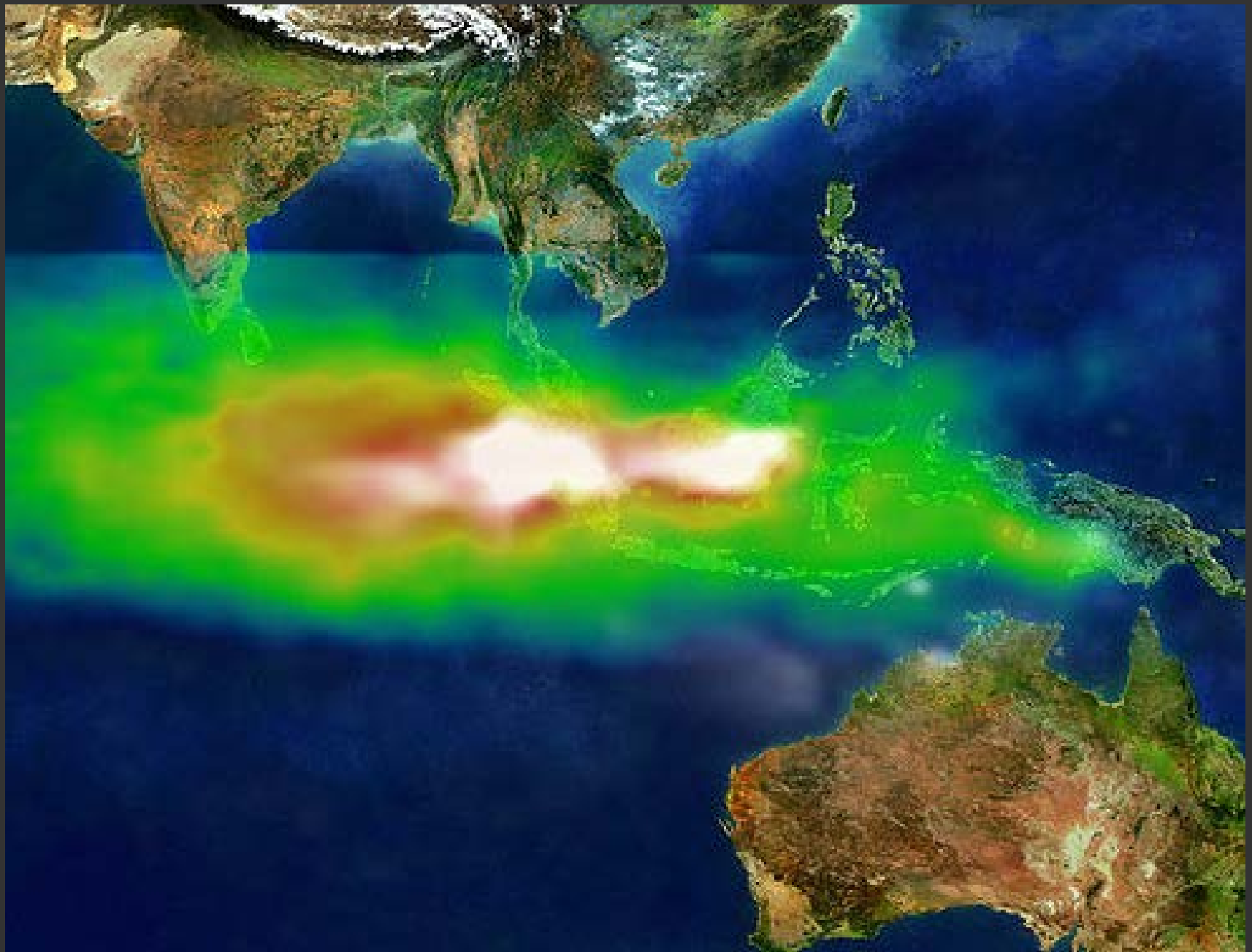
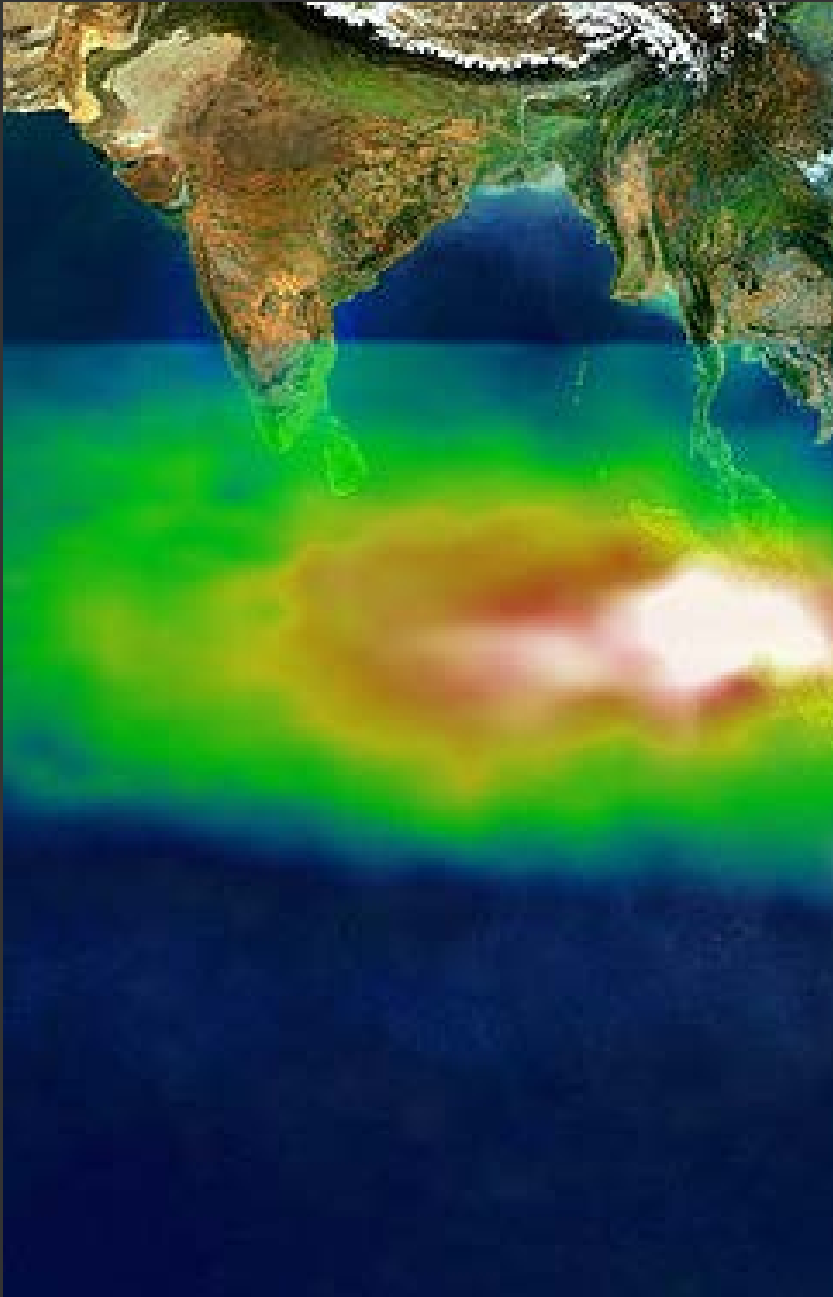


What do we mean by “One Welfare”?

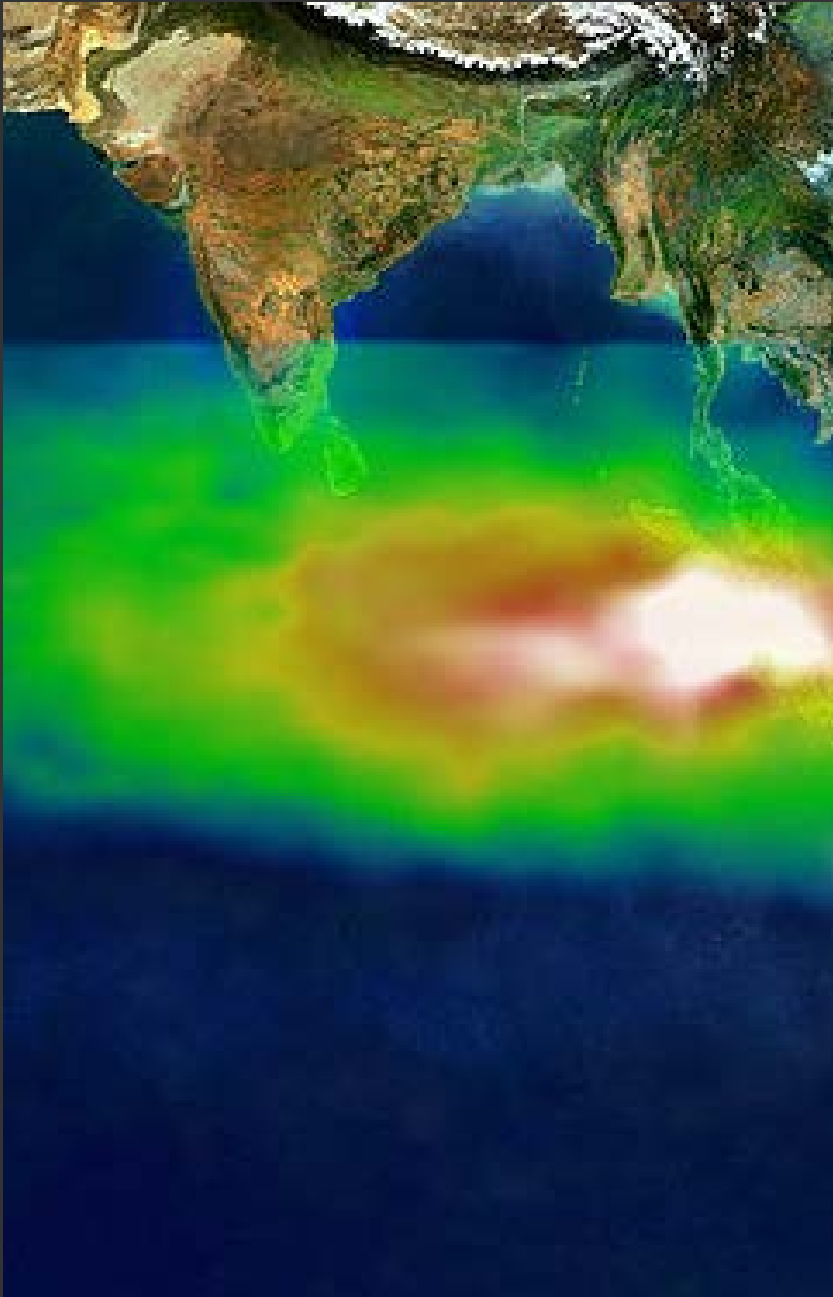
David Fraser
Animal Welfare Program,
University of British Columbia



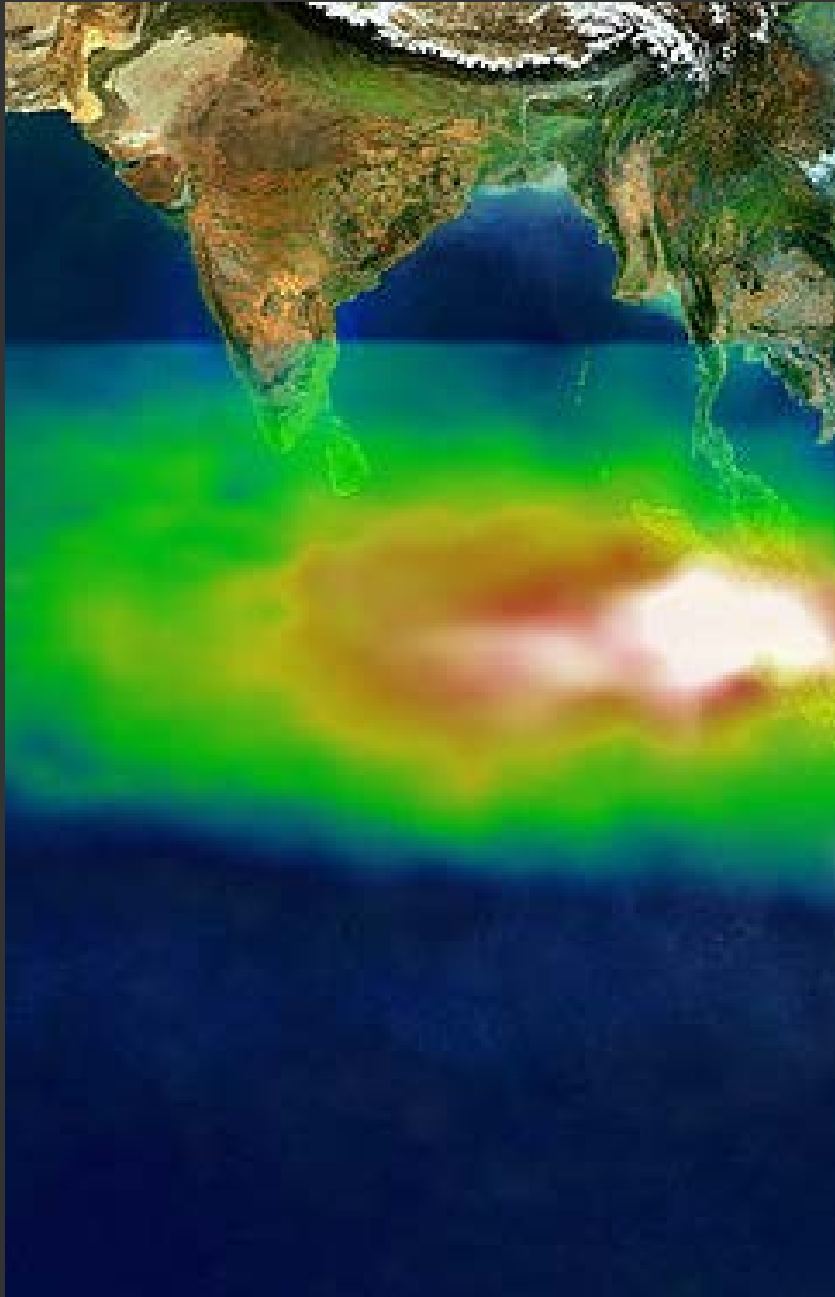
Source: NASA/GSFC



- Reduced availability of flowering/fruiting forest trees



- Reduced availability of flowering/fruited forest trees
- Encroachment of fruit-bats into cultivated orchards



- Reduced availability of flowering/fruited forest trees
- Encroachment of fruit-bats into cultivated orchards
- Bat droppings and partly eaten fruit fell into pig enclosures below the trees

“One Health”

“... that human health and animal health are interdependent and bound to the health of the ecosystems in which they exist”

OIE, 2013

“One Welfare”

1. Improving animal welfare often improves human welfare (and *vice versa*)

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International
Office of Epizootics

Oficina Internacional
de Epizootias

OFFICE INTERNATIONAL DES ÉPIZOOTIES

REVUE

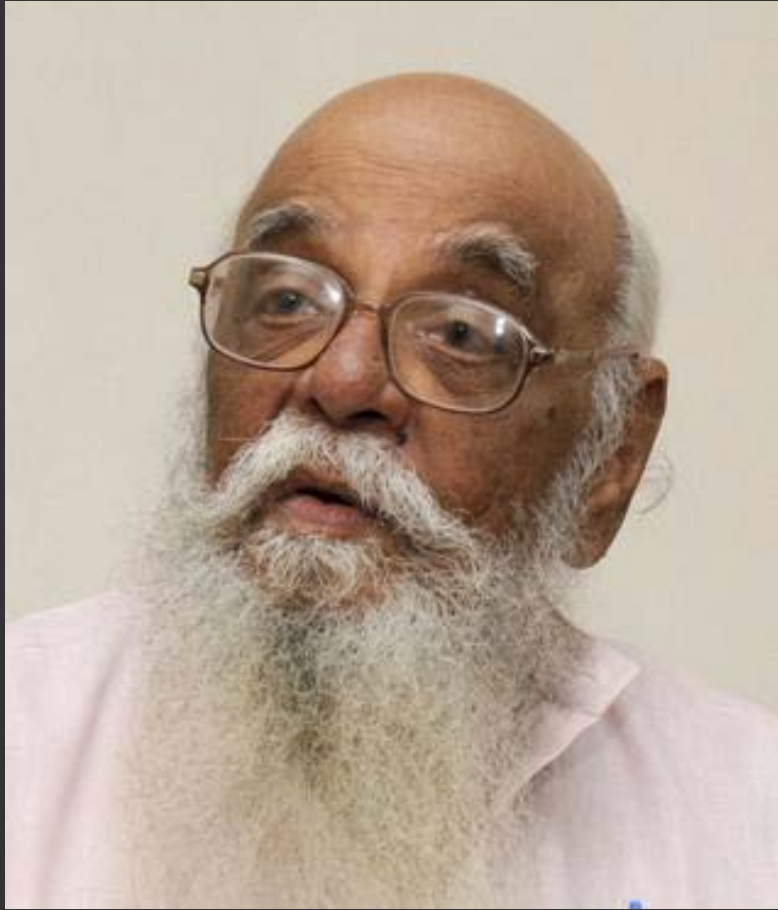
SCIENTIFIQUE ET TECHNIQUE

Animal welfare and Veterinary Services
Protection animale et Services vétérinaires
Protección animal y Servicios veterinarios

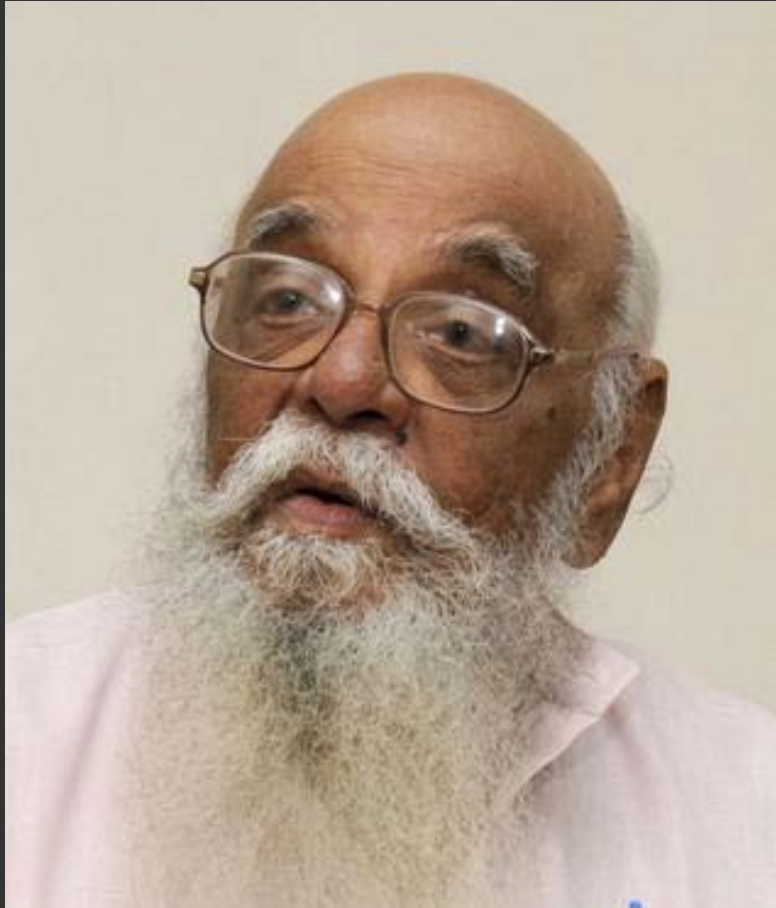
VOL. 13, N° 1
MARS - MARCH - MARZO
1994

Animal Welfare and Veterinary Services

OIE Revue Scientifique
et Technique, 1994



N.S. Ramaswamy 1994. Draught animals and welfare. Rev. Sci. Tech. OIE 13: 195-216



- well-designed harnesses
- adequate nutrition
- more efficient carts

N.S. Ramaswamy 1994. Draught animals and welfare. Rev. Sci. Tech. OIE 13: 195-216



Capacity building to implement good animal welfare practices

FAO Expert Meeting

FAO Headquarters (Rome) • 30 September – 3 October 2008

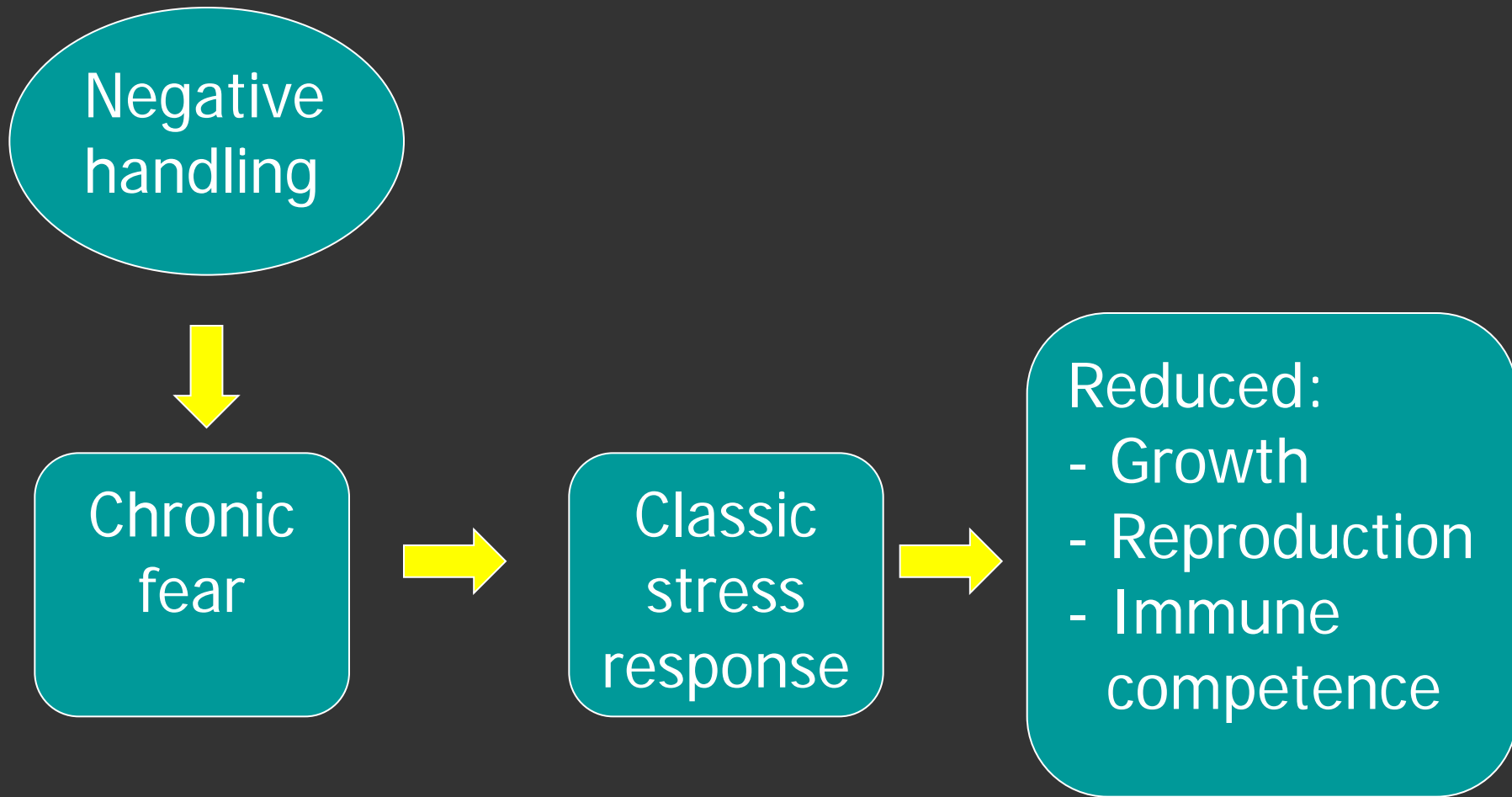


- Good handling: improve growth and reproduction
- Good nutrition: improve production efficiency
- Safe, comfortable environments: prevent loss through injuries
- Good loading and transport: reduce losses through stress
- Sanitation, hygiene: improve food safety

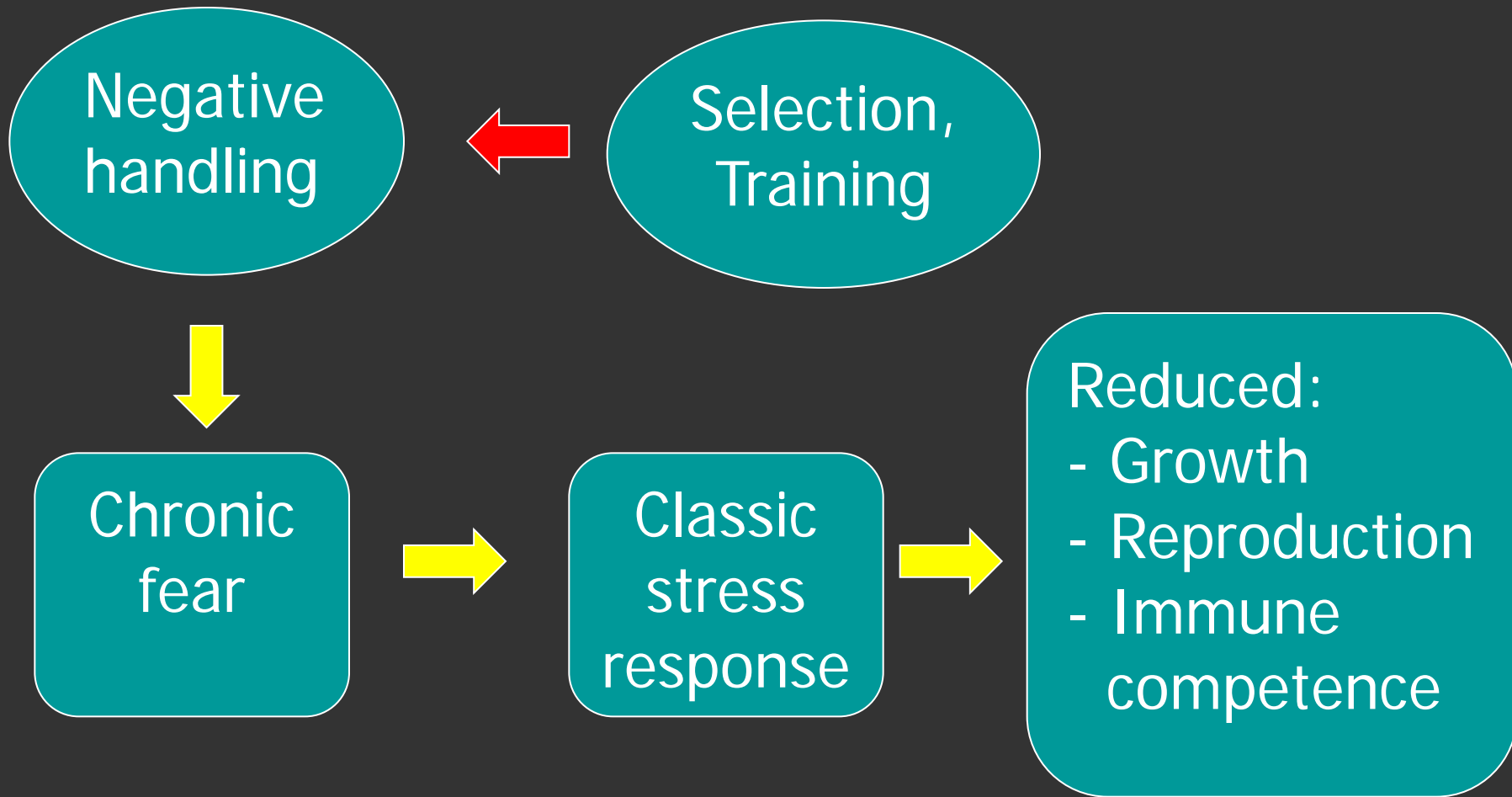
Negative handling of dairy cows: slaps, hits, pushes, tail-twists

Variable	Correlation	P
Avoidance of handler	+0.33	<0.01
Cortisol in milk	+0.34	<0.01
Yearly milk yield	-0.36	<0.01

Hemsworth et al. 2000. J. Anim. Sci. 78: 2821-2831



Based on Hemsworth and Coleman, 2011



Based on Hemsworth and Coleman, 2011



Photo: CBM



Model gaushalas



Photo: Dev Sanskriti Vishwavidyalaya

Model gaushalas



- biogas
- vermi-compost
- power
- training
- genetic improvement
of local breeds

Photo: Dev Sanskriti Vishwavidyalaya



Photo: New Leash on Life, USA



- responsibility
- patience
- tolerance
- empathy
- satisfaction through service

Photo: New Leash on Life, USA

2. The need to coordinate actions

Abuse



Photo: Mercy for Animals



F. Ascione et al. (2007). Battered pets and domestic violence. *Violence Against Women*, 13: 354–373.



“Women residing at domestic violence shelters were nearly 11 times more likely to report that their partner had hurt or killed pets than a comparison group of women who said they had not experienced intimate violence.”

F. Ascione et al. (2007). Battered pets and domestic violence. *Violence Against Women*, 13: 354–373.



In some cases the threat of harm to the animals was so severe that women delayed escaping from violent partners because of fears for the animals' safety.

F. Ascione et al. (2007). Battered pets and domestic violence. *Violence Against Women*, 13: 354–373.

Neglect



Animal Cruelty Service

Farm animal neglect in Denmark

“... that animal neglect is embedded in a complex network of other problems in agriculture”

Andrade and Anneberg (2014). *J. Agr. Environ. Ethic.* 27:103–126.

Farm animal neglect in Denmark

“... that animal neglect is embedded in a complex network of other problems in agriculture”

“severe financial difficulties, divorce and psychiatric problems”

Andrade and Anneberg (2014). *J. Agr. Environ. Ethic.* 27:103–126.

Farm animal neglect in Ireland

C. Devitt et al. 2015. *Sociologia Ruralis* 55: 400-416.

Farm animal neglect in Ireland

Cases	Reasons
5	age- and health-related difficulties

C. Devitt et al. 2015. *Sociologia Ruralis* 55: 400-416.

Farm animal neglect in Ireland

Cases	Reasons
5	age- and health-related difficulties
4	depression or other problems of mental health

C. Devitt et al. 2015. *Sociologia Ruralis* 55: 400-416.

Farm animal neglect in Ireland

Cases	Reasons
5	age- and health-related difficulties
4	depression or other problems of mental health
4	the farmer did not attach high priority to animal welfare

C. Devitt et al. 2015. *Sociologia Ruralis* 55: 400-416.

Hoarding



Photo: www.animalsheltering.org

Hoarding

- accumulation of many animals that overwhelm their ability to provide care



(G. Patronek, 2001)

Photo: www.animalsheltering.org

Hoarding



- accumulation of many animals that overwhelm their ability to provide care
- failure to acknowledge the deteriorating condition

(G. Patronek, 2001)

Photo: www.animalsheltering.org

Hoarding



- accumulation of many animals that overwhelm their ability to provide care
- failure to acknowledge the deteriorating condition
- failure to recognize the harm to their own health and wellbeing

(G. Patronek, 2001)

Photo: www.animalsheltering.org

Co-morbidity of Hoarding Disorder

Major depression	57%
Social phobia	29%
Generalized Anxiety Disorder	28%
Obsessive-Compulsive Disorder	17%

A. Pertusa et al. (2010). Clin. Psychol.
Rev. 30: 371–386.

Disaster Relief



PBS 
NEWS
HOUR

Disaster Relief



Photo: World Vets

2. The need to coordinate action between veterinary and other services

- violence and animal abuse
- animal neglect and hoarding
- disaster relief

3. Protecting the environment is fundamental for both human and animal welfare

Introduction of invasive species



Courtesy: Kangaroorfarmer





Photo: Michigan Sea Grant

Coastal Dead Zones



R Diaz & R Rosenberg 2008 Spreading dead zones and consequences for marine ecosystems. *Science* 321: 926-929

Coastal Dead Zones



“Dead zones have now been reported from more than 400 systems, affecting a total area of more than 245,000 square kilometers ... [and causing]... mass mortality”

R Diaz & R Rosenberg 2008 Spreading dead zones and consequences for marine ecosystems. *Science* 321: 926-929

Climate change



Photo courtesy: Kerstin Langenberger Photography

Climate change



CD Thomas et al. 2004. Extinction risk from climate change. *Nature* 427: 145-148

Climate change



... we predict, on the basis of mid-range climate-warming scenarios for 2050, that 15–37% of species in our sample of regions and taxa will be 'committed to extinction'...

CD Thomas et al. 2004. Extinction risk from climate change. *Nature* 427: 145-148

The same human activities driving the current extinction crisis are also causing suffering, fear, physical injury, psychological trauma, and disease in wild animals.

Paul Paquet & Chris Darimont, 2010
Animal Welfare 19: 177-190

3. Protecting the environment is fundamental to both human and animal welfare

Changes to:

- the biotic community
- to chemical balances
- and to global climate

may prove to be some of the greatest threats to both human and animal welfare in our current century.

What do we mean by “One Welfare”?

What do we mean by “One Welfare”?

“One Welfare” serves as a call to recognize the many interconnections between human welfare, animal welfare and the integrity of the environment.

What do we mean by “One Welfare”?

1. Improve animal welfare to improve human welfare (and *vice versa*)
2. Co-ordinate actions between veterinary and other services
3. Protect the environment as a fundamental step for both human and animal welfare