



# Animal welfare worldwide

THE ROLE OF VETERINARY SERVICES  
IN IMPROVING ANIMAL CARE

PRODUCED IN ASSOCIATION WITH:





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**COVER IMAGE.**  
Improving animal health also improves animal welfare: innoculating against Newcastle disease in Malawi.



RSPCA 2009

Many developing countries rely on animals for their livelihoods so improving their welfare is crucial.

## Introduction

In 2001 the OIE (World Organisation for Animal Health) agreed to widen its mandate to include animal welfare. In the subsequent nine years it has agreed six guidelines<sup>1</sup> on animal welfare and is discussing three further ones (see below).

The OIE faces challenges in promoting the implementation of its guidelines by its members, and this was discussed at the second global conference on animal welfare in Cairo in 2008. Civil society can play an important role in working with the veterinary services department and other veterinarians to promote, implement and enforce OIE guidelines in country. In 2009 a report was presented at the OIE General Assembly in Paris by the major animal welfare groups that showed the key partnership programmes operated by these organisations in 44 different OIE member countries.

This report is designed to give information to the major communities that have a role in improving animal welfare in country through the adoption of OIE guidelines. It looks at what animal welfare is; the link between animal welfare and other issues such as animal health and human health; how welfare can be measured; and how improving animal welfare can impact on and improve disease control and economic development; as well as presenting trade opportunities. This report also examines case studies that explain the role of the International Coalition for Animal Welfare (ICFAW) in relation to the implementation of OIE guidelines.

## Current position on animal welfare guidelines in the OIE

GUIDELINE	DATE AGREED
Slaughter for human consumption	2005
Slaughter for disease control	2005
Live transportation by land	2005
Live transportation by sea	2005
Live transportation by air	2005
Stray dog population control	2008
Animal welfare and beef cattle production systems	In discussion
Animal welfare and broiler chicken production systems	In discussion
Use of animals in research, testing or teaching	In discussion

<sup>1</sup> The terminology used follows that on the OIE website: [www.oie.int/eng/normes/mcode/en\\_sommaire.htm](http://www.oie.int/eng/normes/mcode/en_sommaire.htm). All 'guidelines' are within the Terrestrial Animal Health Code although some are called recommendations, some guidelines and some are for advice and information. The Code Commission of the OIE is due to decide an agreed terminology in 2010.

## What is animal welfare?

In 2008 the OIE adopted a definition on animal welfare:

*“Animal welfare means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry and humane treatment.”<sup>2</sup>*

This definition clearly shows that an animal can experience both good and poor welfare and that there are important factors that influence its welfare. These factors are often summarised as the Five Freedoms, which are given below together with the factors that influence the animal.

### The Five Freedoms<sup>3</sup>

FREEDOM	INFLUENCING FACTORS
1. Freedom from hunger and thirst	By ready access to fresh water and a diet to maintain full health and vigour.
2. Freedom from discomfort	By providing an appropriate environment including shelter and a comfortable resting area.
3. Freedom from pain, injury or disease	By prevention or rapid diagnosis and treatment.
4. Freedom to express normal behaviour	By providing sufficient space, proper facilities and company of the animal's own kind.
5. Freedom from fear and distress	By ensuring conditions and treatment that avoid mental suffering.

The science of animal welfare – understanding how an animal is feeling and how it meets the Five Freedoms – is a comparatively young field. However, in the past 20 years there have been huge developments. These have included the founding and spread of academic institutions focused on animal welfare in centres in all five major continents and the development of scientific studies into animal welfare in China, South America and the Middle East. The OIE now has animal health collaborating centres in many countries around the world, and has animal welfare collaborating centres in Italy, New Zealand, Chile and Uruguay.

## What are the links and differences between animal health and animal welfare?

**Animal health is only one part of animal welfare, albeit an important one. When an animal's health is poor, so is its welfare, but poor welfare does not always imply poor health.**

Whereas animal health is an animal's state as regards its attempts to cope with pathology, animal welfare includes feelings and other brain mechanisms, behavioural and physiological responses and the functioning of the immune system. One important aspect of animal welfare is the degree to

<sup>2</sup> [www.oie.int/eng/normes/mcode/en\\_chapitre\\_171.htm](http://www.oie.int/eng/normes/mcode/en_chapitre_171.htm)

<sup>3</sup> [www.fawc.org.uk](http://www.fawc.org.uk)

which animals are capable of fulfilling their behavioural needs. For example, a laying hen is highly motivated to seek out a secluded nest site when she is about to lay an egg. The internal trigger for nest-seeking behaviour is a sudden rise in progesterone against a background of fairly high oestrogen levels. Scientific studies have demonstrated that when hens are confined to barren, restrictive cage environments, the lack of outlets for normal nesting behaviour may lead to frustration and distress.<sup>4</sup>

So a wide range of measures are required to assess welfare. Some measures of poor welfare are also indicators of poor health, such as body damage and symptoms of infectious disease. But other measures of poor welfare, while not being signs of poor health at that time, indicate a risk of poor health in the future. These include immunosuppression and the occurrence of injurious abnormal behaviours, such as bar biting in pigs or feather plucking in parrots.

## How do you measure animal welfare?

**Over the past decade there have been great strides in understanding how to measure animal welfare. Instead of looking only at the health of the animal, scientists are now able to understand its welfare, using a variety of multidisciplinary tools, while measurements to improve animal welfare are continuously evolving and improving.**

In addition to prescribing inputs (resources) such as how much space to give a pig, good welfare standards now also look at outputs such as how the animal is behaving and its physical condition. It is helpful to consider both inputs/resources and outcomes when thinking about animal welfare.

The following outcome-based measurables are mentioned in the draft guidelines on chickens and show the range of indicators that can be used, including disease, behaviour and body condition.

FREEDOM	MEASUREMENT
Freedom from pain, injury and disease	The chicken's gait; feather condition; the incidence of contact dermatitis; sudden death syndrome; respiratory disease
Freedom to behave normally	Dust bathing; feather pecking
Freedom from fear and distress	The bird's spatial distribution; panting

## Consideration of welfare outcomes and inputs to improve welfare and profitability in dairy cattle

**One example of how improving animal welfare can impact and improve economic development concerns the dairy cow. Lameness in dairy cattle is a welfare problem but it also has an economic cost. The average cost of lameness is estimated to be \$124 per cow but many farmers are not aware of how many of their cows are lame.**

Outcome assessment can be used to assess the incidence of lameness in dairy cattle. However, studies by organisations such as the European Food Safety Authority<sup>5</sup> show that an effective strategy for reducing lameness must address housing and management issues such as the provision of sufficient space, especially for lying down and effective hoof trimming. Lameness control programmes are now being developed on many farms, looking at the causal condition, risk factors and the best method to control the disease.

<sup>4</sup> Baxter, M. 1994. The welfare problem of laying hens in battery cages. *Vet. Record* 134(24) 614-9;

Apelly, M.C., Hughes, B.O. & Elson, H.A. 1992. Poultry production systems: behaviour, management and welfare. Wallingford CABI.

<sup>5</sup> EFSA. 2009 Scientific opinion on the overall effects of farming systems on dairy cow welfare and disease: [www.efsa.europa.eu/en/scdocs/scdoc/1143.htm](http://www.efsa.europa.eu/en/scdocs/scdoc/1143.htm)

## How has welfare improved developing countries' trade opportunities?

In the past decade animal welfare issues have grown in importance not only in developed countries but also in developing countries where improvement of animal welfare practices can lead to increased trade opportunities.

Such countries, where land and labour are cheaper than in developed countries, are likely to have a natural commercial advantage by producing farm products more cheaply. Studies published by the OIE have shown the potential for trade in welfare-assured products from developing countries. For instance, exporters in Namibia and Argentina are already complying with strict hygiene, health and safety standards<sup>6</sup>. The links between improving animal welfare and improving the health and safety standards can be shown when agricultural practices and traceability are improved. For example, the Namibian beef industry has increased export-market leverage by guaranteeing traceability and by implementing good welfare standards.

The connection between improving welfare and profitability in an industry has been demonstrated in beef cattle. In Uruguay, one cattle study found poor welfare cost the farmers \$32.52 per cow due to bruising, for example, which equated to a loss of \$58 million a year for the industry to the country<sup>7</sup>. Rectifying measures can be implemented to reduce this loss.

## What can the Chief Veterinary Officer (CVO) do?

The CVO is in a unique position to affect change in terms of how society views and treats animals. There are a number of ways to influence the national agenda in relation to animals. Some, such as implementing OIE guidelines in legislation, are discussed in the 2009 OIE report. Animal Welfare Education (AWE) is also important. This is the process by which learners develop compassion, a sense of justice and a respect for the value of life. It provides the knowledge and understanding necessary for learners to behave according to these principles and it fosters a sense of responsibility to affirm and act upon their personal beliefs. Some examples of areas where changes can be initiated are outlined here.

- Education through formal curricula is the long-term approach to changing attitudes in the next generation of policy and decision makers. This could be achieved by developing partnerships with government ministries such as the Ministry for Education to achieve the inclusion of animal welfare language into national curriculum documents for children in the 5–16 age range. Animal welfare organisations have educational resources that could assist with this.
- Changing the formal curricula of universities to build in an understanding of the importance of animal sentience and the ethics of animal welfare can change attitudes in a range of disciplines. Veterinary medical science, animal science and agriculture are some of the most obvious academic entry points, but zoology, law, philosophy and journalism also provide relevant platforms.
- Formal training in the form of Continuous Professional Development (CPD) in relevant animal welfare areas should be available for those in direct contact with animals, such as stockpersons, vet technicians and slaughter personnel. This should be available in the form of short, certificated courses recognised by the relevant professional association.
- Informal education from knowledgeable veterinarians is an ideal way to target ordinary citizens with suitable animal welfare messaging and suggestions of how to improve the lives of the animals they encounter, for example, youth clubs, farmers and the owners of companion and draught animals.
- Public awareness campaigns are hugely successful in changing the attitudes held by society in a relatively short space of time. Bringing relevant animal welfare issues to the attention of the public enables public discussion and debate, which results in greater awareness and lower tolerance of unacceptable behaviour.

<sup>6</sup> Bowles, D., Paskin, R., Gutiérrez, M. & Kasterine, A. 2005. Animal welfare and developing countries: opportunities for trade in high-welfare products from developing countries. [www.oie.int/boutique/extrait/bowles783790.pdf](http://www.oie.int/boutique/extrait/bowles783790.pdf)

<sup>7</sup> Huertas Canén, S.M., Cesar, D. & Gil, A.D. 2005. Good management practices in beef cattle production in Uruguay. Training and extension. [www.isah-soc.org/documents/2005/sections/50\\_vol\\_1.pdf](http://www.isah-soc.org/documents/2005/sections/50_vol_1.pdf)

<sup>8</sup> [www.rspca.org.uk/in-action/international/campaignsandissues/-/article/INT\\_campaignandglobalissues](http://www.rspca.org.uk/in-action/international/campaignsandissues/-/article/INT_campaignandglobalissues). Accessed 15.03.10.

The Chief Veterinary Officer is in an ideal position to take the lead in engaging the relevant stakeholders in their country in implementing a range of programmes that broaden the national understanding of animal sentience, the needs of animals, and the significance of the Five Freedoms.

The Chief Veterinary Officer can also play an important role in shaping the future direction of animal welfare at the OIE.

## How can non-governmental organisations help?

One of the major challenges that the OIE faces is the implementation and enforcement of its guidelines. The members of ICFAW have proactive programmes in more than 70 countries worldwide and have been linking their programmes on animal welfare to the implementation and enforcement of OIE guidelines over the past five years. The following case studies show the range of countries and measures being taken to improve welfare and the results that have already occurred.

### CASE STUDY 1

#### Improving welfare in the slaughter of animals for food, China

##### SITUATION PRIOR TO THE PROGRAMME

With more than 11 billion chickens slaughtered each year (18 per cent of the global production), China is the second largest chicken producer in the world, and with 12 per cent of the beef production, it is the third largest global beef producer<sup>9</sup>. In 2008 China's meat production topped 90.5 million tonnes, accounting for 29 per cent of total global output. Exports, however, were only 742,000 tonnes. A similar picture emerges in the pig industry where the country produced 46 million tonnes in 2008, nearly one-half of the world's total, but exported only 142,000 tonnes.

The reason for the low level of exports partly arises from China not meeting importing countries' sanitary and animal welfare standards, so barring its exports from major markets such as the EU.

##### EVALUATION AND TRAINING

In February 2007, a humane slaughter programme was jointly initiated between the World Society for the Protection of Animals (WSPA) and Beijing Chaoyang-Anhua Animal Product Safety Research Institute (APSRI). The project's aims were to promote rules and standards for humane slaughter and then teach workers how to carry them out, so improving welfare standards in slaughter. By 2008, more than 2,300 people from nearly 950 companies from different parts of China had been trained, including 400 trainers at 300 pig and poultry plants and 158 government inspectors.

##### THE LINKS TO OIE GUIDELINES

The OIE guidelines on slaughter for human consumption were used as the benchmark for the training.

##### RESULTS OF THE PROGRAMME

Following the training, a questionnaire review system was instituted. The review showed that 87 per cent of slaughter plants had implemented at least one animal welfare improvement, such as new or improved buildings; altering runs for the cattle into the abattoir to ensure that sharp turns and dead ends were eradicated, so improving welfare; installing new equipment; or improving handling techniques.

This had an impact on sales. Yang Jianhua, general manager of Qingdao Jianhua Food Machinery Manufacture Ltd, said sales of humane slaughter lines in his company were 30 per cent higher in 2009 compared to the year before. In August 2008, 'humane slaughter' was officially written into the Commerce Ministry's regulations on the killing of pigs, and a set of technical standards on their humane slaughter was issued that December. In September 2009 the first draft animal welfare law was drafted and issued for comment.

<sup>9</sup> www.fao.org

## CASE STUDY 2

### Improving welfare in the slaughter of food animals, Costa Rica

#### SITUATION PRIOR TO THE PROGRAMME

In 2004, Humane Society International (HSI) and Costa Rica's National Cattlemen's Association (CORFOGA) conducted an animal welfare evaluation within Costa Rica's livestock industry. This was led by the UK's University of Bristol's animal welfare department. It was determined that there was a lot of improvement necessary for animal welfare at the time of slaughter within the Costa Rican industry.

#### EVALUATION AND TRAINING

Information was gathered on slaughterhouses, auction facilities, farms and transport vehicles and a training programme was developed to improve welfare at slaughter. Bristol's Animal Welfare Training Team, with the support of HSI, then set about planning and conducting a series of training seminars over the next three years. The training focused primarily on animal welfare during stunning and slaughter, but presentations and technical assistance were also given to improve animal welfare from the farm to slaughter.

#### THE LINKS TO OIE GUIDELINES

The training included many of the same principles established in the OIE guidelines on slaughter of animals for human consumption.

#### RESULTS OF THE PROGRAMME

As a result of these training programmes a national animal welfare committee was developed in Costa Rica. The purpose of this committee is to retain the knowledge gained over the three-year programme and to develop sustainable 'farm to slaughter' animal welfare programme in the region. The committee is made up of representatives from government, academia and industry, allowing equal participation of each sector in the development of animal welfare priorities. The committee is currently carrying out a training programme on animal welfare within the livestock industry, intending to bolster awareness and trigger improvements throughout the production chain.

Following the training, animal welfare became a more prevalent topic in the industry, leading to several specific changes. One auction house retro-fitted its pens to include the provision of water for the animals as well as adding curved corners and closed runways. One slaughterhouse has banned the use of electric prods in its facilities.



HSI 2009

Training operatives in abattoirs can improve welfare and profitability.



## CASE STUDY 3

### Improving welfare during dog control in Colombo, Sri Lanka

#### SITUATION PRIOR TO THE PROGRAMME

Rabies kills over 55,000 people a year, with 99 per cent of cases transmitted by dog bites<sup>10</sup>. This represents a human cost and a financial burden for those at risk. Reliable post-exposure rabies treatment is estimated at \$49 per person in Asia<sup>11</sup>. Colombo City, like many municipalities in developing countries, attempted to control rabies by catching and killing hundreds of street dogs each year. But this didn't meet the goals of controlling rabies or stopping people from abandoning dogs. The welfare problems involved in the inhumane capture and killing of the dogs also caused great concern among the public and the workers carrying out the programmes.

#### EVALUATION AND TRAINING

In 2006 WSPA worked in partnership with the local organisation the Blue Paw Trust and Colombo Municipal Council to develop a sustainable and humane dog population control programme that would also prevent rabies. Under the five-year programme, dog catchers were trained in humane handling, capture and euthanasia; the local community were educated on reducing dog bites; and two mobile clinics sterilised and vaccinated dogs.

#### THE LINKS TO OIE GUIDELINES

In 2008 the OIE adopted guidelines on stray dog control, which were consistent with the handling, transportation and euthanasia practices being used in the Colombo programme.

#### RESULTS OF THE PROGRAMME

Since the beginning of the programme, 89 per cent of the roaming dog population has received rabies vaccinations. Cases of rabies have more than halved since the programme started. Between 2006, when the programme started, and 2009 there have been no human rabies cases. Dog bite incidences reduced when evaluated in 2009. The population of dogs has also reduced, as the percentage of roaming lactating female dogs has more than halved since the programme started. The welfare of the dog population has improved. Only 33 per cent of the sterilised dogs have skin problems compared to 48 per cent of unsterilised dogs. Colombo's dogs now pose less threat to human health than ever before.

<sup>10</sup> [www.who.int/rabies/bmgf\\_who\\_project/en/index.html](http://www.who.int/rabies/bmgf_who_project/en/index.html)

<sup>11</sup> [www.who.int/mediacentre/factsheets/fs099/en/index.html](http://www.who.int/mediacentre/factsheets/fs099/en/index.html)



WSPA 2009

Improving the humaneness of dog control can reduce the dog population, improve welfare and reduce diseases such as rabies.

## CASE STUDY 4

### Improving the welfare of chickens, Malawi

#### SITUATION PRIOR TO THE PROGRAMME

Chickens are the most commonly kept livestock in Malawi, providing both a source of protein and income. It is estimated that 95 per cent of Malawian households own chickens, with an average flock size of 7–10 birds. Malawi suffers from frequent epizootics of Newcastle disease, a highly lethal chicken disease that kills 40–100 per cent of all village chickens. It also causes poor welfare and devastates the livelihoods of poor communities.

#### EVALUATION AND TRAINING

At present the control of Newcastle disease is limited by a lack of trained vaccinators, availability of the vaccine, and the efficacy of the vaccine in the field due to limited cold chain equipment. In 2009 the RSPCA, in partnership with the Lilongwe Society for the Protection and Care of Animals and the Department of Animal Health and Livestock Development, started a programme of training livestock coordinators in disease protection and chicken welfare and delivering workshops to communities in seven Lilongwe districts. An intensive vaccination programme starts in June 2010, which aims to minimise chicken mortality and support the local community.

#### THE LINKS TO OIE GUIDELINES

The OIE is currently developing its chicken welfare guidelines and has a standard on Newcastle disease.

#### RESULTS OF THE PROGRAMME

The programme is targeted to reach 200,000 people in Lilongwe. Baseline data have been collected on the mortality rates of chickens, their economic value and owners' level of disease knowledge. The interviews will be repeated post-training and vaccinations to assess the effectiveness of the programme.

## CASE STUDY 5

### Improving the welfare of dog control, Dubai

#### SITUATION PRIOR TO THE PROGRAMME

In Dubai there was indiscriminate poisoning and shooting of stray dogs, as there was no capacity for humane dog control and no control of pet shops selling companion animals. A new regulatory framework was introduced in 2008. The challenge was whether this would be enforced.

#### EVALUATION AND TRAINING

An introductory workshop and training workshops were held on humane stray control by WSPA. These were intended to build up the capacity of veterinarians and animal handlers to carry out humane dog control, including catching, neutering and humane euthanasia, and to improve awareness of legislation among municipalities and the capacity to enforce these regulations.

#### THE LINKS TO OIE GUIDELINES

In 2008 the OIE adopted guidelines on stray dog control that were consistent with the handling, transportation and euthanasia practices covered in this training.

#### RESULTS OF THE PROGRAMME

A Memorandum of Understanding between WSPA and Dubai Municipality was signed on humane dog/cat control in 2007, and this work in Dubai can now be used as a regional model. Indiscriminate shooting and poisoning of stray dogs has ceased. Dubai government vets now have skills in companion animal veterinary medicine, which has increased public confidence. The first national animal welfare legislation was introduced, including pet shop regulations, and inspection procedures have been implemented. Governments in at least five Emirates now have an understanding of the new law.

<sup>7</sup> [http://www.oie.int/eng/normes/mcode/code2008/en\\_chapitre\\_110.13.htm](http://www.oie.int/eng/normes/mcode/code2008/en_chapitre_110.13.htm)

## CONCLUSION

**Animal welfare plays a vital role in the economic status of a country. The links between improving animal welfare and either reducing disease or improving the health of the animal are now well known.**

There are a number of case studies showing the links between improving the welfare of an animal and reducing diseases in humans, improving community livelihoods and increasing trade opportunities, particularly for developing countries. With developments in animal welfare science, it is now possible to accurately measure the welfare of animals.

By 2012 it is expected that the OIE will have developed nine guidelines covering farm animals, animal in laboratories and dog control measures. This is a real opportunity for the 175 OIE members to improve the welfare of animals in their country, particularly those members that at present have no legislation on standards of animal welfare.

Animal welfare organisations have programmes in more than 100 countries worldwide, many in partnership with a local organisation and the Veterinary Services Department. These underline the genuine opportunities for developing countries to develop further programmes, implement and enforce OIE guidelines and so improve the welfare of animals and humans.



RSPCA 2009

In Malawi, improving animal welfare of chickens can have a direct result on livelihoods and improve the local economy.



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