

Animal welfare: a complex international public policy issue: economic, policy, societal, cultural and other drivers and constraints. A 20-year international perspective

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Abstract

The World Organisation for Animal Health (OIE) policy definition that “animal welfare is a complex international public policy issue with scientific, ethical, economic, cultural and religious dimensions, plus important trade policy considerations” clearly demonstrates the multi-faceted nature of animal welfare. Progress made is inevitably incremental and compromises often have to be reached between animal welfare and other important societal values. Recognition of the need for managed change over agreed time-frames, and involving full consultation with affected animal user groups, is essential. This paper draws on case studies involving intensive livestock agriculture, live animal exports for slaughter, religious slaughter and vertebrate pest control in both New Zealand’s domestic experience, gained over the last 20 years, and international (OIE) experience, gained over the last ten years. Case studies will also highlight policy considerations relating to animal health, food safety and the impact on the environment. Important drivers of animal welfare change will be discussed; as will the constraints to making changes. The paper will conclude by commenting on the direction, and rate, of animal welfare change and the impact of animal welfare being addressed, not only at the national and regional level, but now also at the international level.

Keywords: animal welfare, constraints, drivers, international, New Zealand, public policy

Introduction

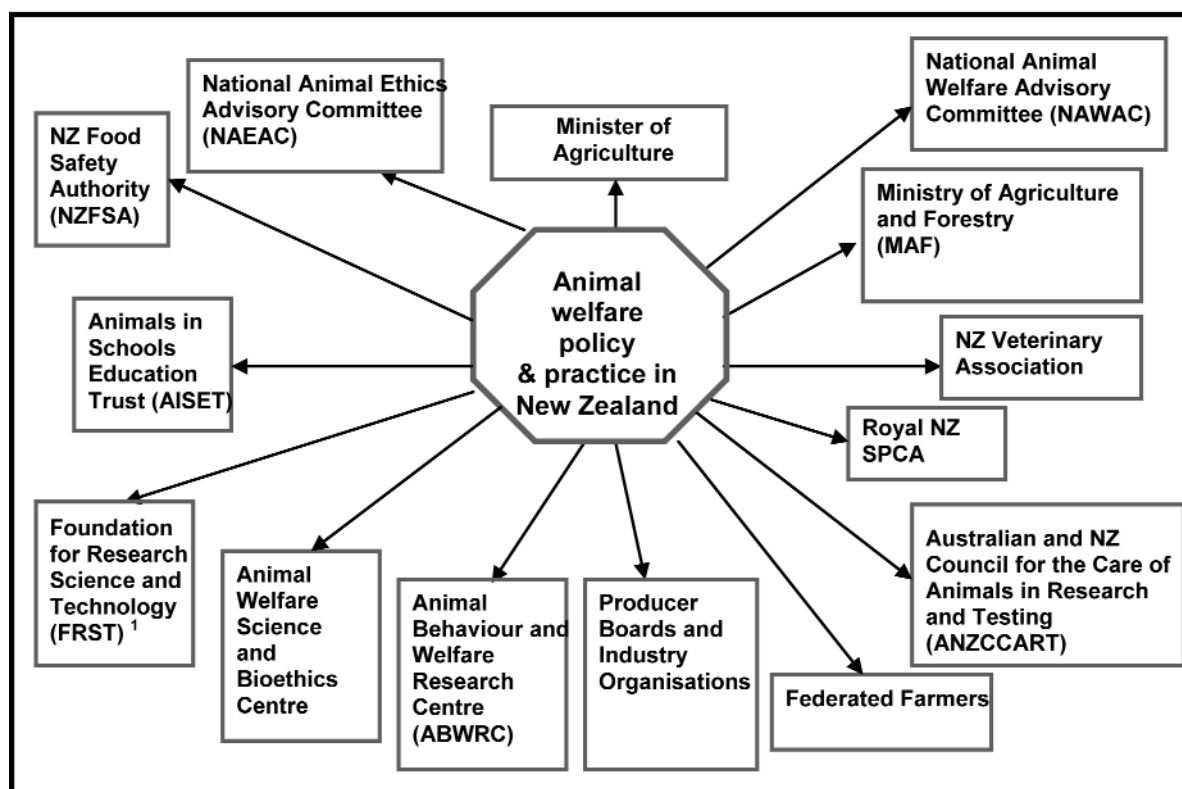
The title of the book, *A Cool Eye Towards Eden* (Webster 1995) communicates the notion of measured and pragmatic progress towards a desired future animal welfare state. In the subsequent book, *Limping Towards Eden* (Webster 2005), the inference is that progress is less than optimum and that a utopic animal welfare state is unlikely to be an achievable goal. Strategies for improving animal welfare have been broadly classified by Mellor and Stafford (1999) into two approaches: the ‘gold standard’ approach (where this represents the ideal that is to be attained in a particular situation) or the ‘incremental improvement’ approach (where a series of smaller goals are set and achieved in a step-wise fashion towards the same ideal); and the authors discuss the advantages of adopting the latter approach. Bayvel and Cross (2010), in turn, view animal welfare improvement as an incremental change management issue, and challenge, with improvement being very much a ‘journey’ rather than a short to medium term ‘destination’ *per se*.

The need for improvement in animal welfare policies and practice continues to attract ever-increasing public, political, professional and media attention at both a national and international level. However, animal welfare non-

governmental organisations and organisations representing animal user groups often have quite different perceptions on the need for change to current practice. Moreover, even when there is agreement that change is needed, there is often disagreement on an acceptable time-frame for such change. In such an operating environment, questions such as ‘Where are we heading?’, ‘Are we going fast enough?’ and ‘Have we adequately addressed all implications of the proposed change?’ are inevitable. Over the last two decades or so there has, however, been a growing acceptance that the question has become one of ‘when, how and over what time-frame’ will change take place rather than one of ‘if’ such change is required or economically feasible.

At national, regional and international levels there is also a trend towards increased dialogue between the various stakeholder groups and interests. At an international level, initiatives such as the proposed Universal Declaration on Animal Welfare and the involvement of organisations such as the OIE, the Food and Agriculture Organisation, the Council of Europe, the International Organisation for Standardisation, the Organisation for Economic Co-operation and Development and the International Finance Corporation is strategically significant. As an inter-governmental organisa-

Figure 1



Players at the national level in New Zealand. Since the publication of Bayvel and Cross (2010), the Foundation for Research, Science and Technology (FRST) has joined with the Ministry of Research, Science and Technology (MoRST) to create the Ministry of Science and Innovation (MSI).

tion with 178 members, the OIE is playing an increasingly important role in international animal welfare standard setting and in establishing animal welfare capability in countries at an early stage on the animal welfare ‘journey’.

Definitions of animal welfare

A number of definitions for animal welfare have been proposed over the past 20 or so years, but no single definition has gained universal international acceptance. To help guide its international role, as an inter-governmental policy and standard-setting body, the OIE has, however, developed the following definition of animal welfare from a policy perspective (OIE 2002):

Animal welfare is a complex international public policy issue, with important scientific, ethical, economic, cultural, religious and political dimensions and which also raised important international trade policy considerations.

This policy definition is complemented by a second definition based on a scientific perspective (OIE 2009):

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

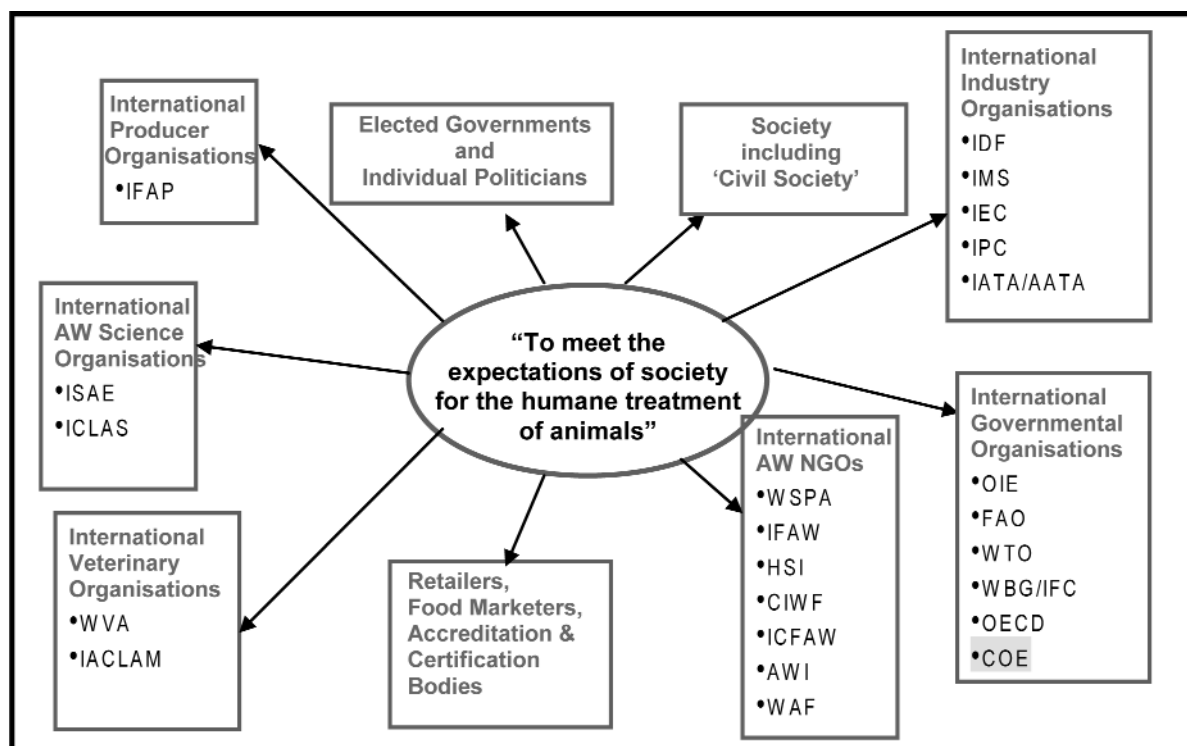
animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal: the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

Animal welfare stakeholders

The complexity of animal welfare policy formulation can be directly related to the number and range of involved stakeholders and the fact that they often, at least initially, have diametrically opposed policy positions. Figure 1 (Bayvel & Cross 2010) provides a national example of the stakeholders involved in the case of New Zealand. New Zealand is a country with a small human population, but an economy which is heavily based on animal agriculture and a society which places considerable importance on animal welfare as a core attitudinal value.

Matthews *et al* (1994) carried out a benchmark study of attitudes to animal welfare within New Zealand society and this was followed up by further studies by Williams *et al* (2007), Ministry of Agriculture and Forestry and UMR Research (2008a,b,c), Synovate (2011), and Loveridge (2012). In the latter paper, Loveridge confirms

Figure 2



Players at the international level. AW = Animal Welfare; IFAP = International Federation of Agricultural Producers; IDF = International Dairy Federation; IMS = International Meat Secretariat; IEC = International Egg Commission; IPC = International Poultry Council; IATA/AATA = International Air Transport Association/Animal Air Transportation Association; ISAE = International Society for Applied Ethology; ICLAS = International Council for Laboratory Animal Science; OIE = World Organisation for Animal Health; FAO = Food and Agriculture Organisation; WTO = World Trade Organisation; WBG/IFC = World Bank Group/International Finance Corporation; OECD = Organisation for Economic Co-Operation and Development; COE = Council of Europe; NGOs = Non-Governmental Animal Welfare Organisations; WSPA = World Society for the Protection of Animals; IFAW = International Fund for Animal Welfare; HSI = Humane Society International; CIWF = Compassion in World Farming; ICFAW = International Coalition for Animal Welfare; AWI = Animal Welfare Institute; WAF = World Animal Forum.

that in both Europe and New Zealand, environmental concerns are stronger than concerns related to animal welfare and involvement in animal welfare assurance schemes, as opposed to general quality-related schemes, has strong ethical motivations.

Bayvel and Cross (2010) emphasise that:

New Zealand is fortunate in having a 'One Minister, One Act, One Ministry' situation in relation to animal welfare policy and practice; that is the Ministry of Agriculture and Forestry is responsible for a single piece of legislation covering the use of animals in agriculture, in science, as companions, for recreational and entertainment purposes and for other purposes.

Moving the animal welfare policy debate from the national or regional stage to the international stage significantly increases the complexity of the debate. Figure 2 (Bayvel & Cross 2010) includes those agencies seen, at this point in time, to be key contributors internationally.

Drivers of change

The important drivers of animal welfare change are diverse. Advances in animal welfare science have provided an increased understanding of animal sentience; evolving societal values and attitudes have influenced how society responds to animal welfare issues; increased environmental awareness and ethical reasoning have influenced how people think about animal welfare issues and international agencies, the retail sector and a large number of professional and industry groups have all driven progressive changes in animal welfare.

The concept of animal sentience can be traced back centuries to the influence of Bentham (1823) and ethical considerations surrounding the use of animals by humans is, likewise, the subject of an extensive historical and contemporary literature. Both animal sentience and animal ethics have, however, been receiving greater attention by society

at large in recent years. The advances in scientific understanding, in the case of sentience, and a largely more compassionate society, in the case of animal ethics, have undoubtedly fuelled a greater interest in animal welfare and in challenging historical animal use practices.

Tulloch (2011) reviews the key historical trends and concepts and supports the capabilities approach of Nussbaum (2004), as a holistic framework for logically and pragmatically addressing the challenges of the years, and decades, ahead in relation to human-animal interactions. Other important contributors to the evolving debate on the ethics of historical animal use practices include Fraser (1999, 2001a,b) and Croney and Anthony (2010). The latter authors emphasise the view that:

Decisions about animal care, and particularly animal welfare, cannot be made solely on the basis of science because the potential effects on producers, animals and concerned citizens and the implications for the environment and food prices must also be considered.

They see ethical accounting processes, such as the ethical matrix, as a means of facilitating decision-making that is ethically responsible but also offers practical and commercially viable strategic approaches.

As international agencies and policy-makers grapple with the challenges of food security, in the face of an ever-increasing human population, the environmental impact and sustainability of current agricultural systems are very much in the public, strategic planning and policy formulation spotlight. Thornton (2010) expresses the view that:

Livestock production is likely to be increasingly affected by carbon constraints and environmental and animal welfare legislation. Demand for livestock products, in the future, could be heavily moderated by socio-economic factors such as human health concerns and changing socio-cultural values. There is considerable uncertainty as to how these factors will play out in different regions of the world in the coming decades.

These formidable challenges are also addressed by MacMillan and Durrant (2009), who emphasise the importance of addressing the 'environmental balance sheet'; Szöves *et al* (2009) who emphasise the importance of 'stockmanship and stewardship' in relation to mitigating animal welfare risks; and Martin *et al* (2009), who specifically address the challenges of, and opportunities presented by, the concept of 'clean, green and ethical' animal reproduction. In the specific case of egg production systems, Xin *et al* (2011) review current knowledge about the environmental impacts of egg production systems and identify research needs as part of a systemic assessment which would lead to the social sustainability of egg production.

The market place has also been a powerful driver of change as foreshadowed by C Spedding (C Spedding, personal communication 2000):

Retailers are becoming the most potent force in setting animal welfare standards and will be the major engine for influencing animal welfare change. They can move faster than governments, can cut off a supplier's livelihood by stopping contracts and can ignore international

trade agreements. While Europe as a whole has to adhere to the World Trade Organization and cannot bar imports on animal welfare grounds, retailers are free to do so.

Spedding's assertion has certainly proved to be prophetic over the last decade, in Europe, North America, New Zealand and Australia, in particular. Associated consumer behaviour is, however, complex and variable. Boström and Klintman (2009) have critically analysed research findings and policies relating to 'the green political food consumer' and sustainable food consumption. They describe the typical concerned consumer as 'reflective, uncertain and ambivalent' and discuss the limitations of current approaches to labelling. The complexity of consumer behaviour, and particularly 'willingness to pay' (WTP), is further discussed in the Australian context by Taylor and Signal (2009), with a particular focus on future initiatives to increase WTP. Zhao and Wu (2011) have also researched factors influencing WTP in China and showed that 89.5% of survey participants stated that they were willing to pay for higher levels of animal welfare; with factors such as age, level of education and annual income influencing participants views on this subject.

Arfini *et al* (2007) raise the interesting and important issue of the role of private versus public innovation. Traditionally, the private sector has taken the lead, but for animal welfare-friendly products, at least in the European Union (EU) context, it is suggested that legislation is the primary driving force in relation to methods of production, communication and promotion.

The private sector is acutely aware of the importance of consumer perception and the role of science (Troy & Kerry 2010). In the red meat industry, historical quality parameters, at point of sale, have included 'intrinsic quality cues' such as colour, packaging and degrees of visual fat rating and 'experienced quality cues' such as tenderness and flavour. Increasingly, however, 'background cues' of safety, nutritional value, animal welfare and sustainability are being recognised as important in terms of consumer purchasing preferences.

Dentoni *et al* (2010) have reviewed the importance, and role, of brand information and branding strategies. They emphasise that "there is strong market segmentation in terms of consumers' response when exposed to brand information, suggesting that brand managers would benefit from tailoring brand information to consumers' age, education, gender and income".

Miele *et al* (2011) emphasise the importance of establishing a dialogue between science and society on animal welfare issues and review the progress and implications of the EU Welfare Quality® project. They note that:

this dialogue showed that technical, ethical and political decisions are highly interwoven and the borders between these domains are porous and subject to constant challenges.

They conclude that:

it will not be easy to reach a consensus on what animal welfare is and how it should be achieved/improved. Different sensibilities, and preferred options, remain

both within animal science and in the public. Dialogue can, however, increase trust and respect even if ideological differences remain.

Other important drivers of change include the increasing involvement by the veterinary, legal and social science communities in the animal welfare debate. Additional specific drivers of change include increasing affluence, the 'urban/rural gap', the influence of the media and the use of social media by both animal welfare and animal rights non-government organisations (NGOs). The Three Rs of Russell and Burch (1959) and the Five Freedoms (FAWC 1993) have also proven to be powerful concepts and, in many countries, have been embedded in animal welfare policy and national legislation. In New Zealand they are also being integrated into relevant courses in the tertiary curriculum (N Waran, personal communication 2010).

Constraints to change

Economic, legal, cultural and religious considerations, and international treaty obligations are all potential constraints to animal welfare improvement and the degree of their impact varies from country-to-country and culture-to-culture.

The status of animal welfare under World Trade Organisation (WTO) agreements was reviewed by Thiermann and Babcock (2005) and this topic is still very much a 'live' issue. The EU hosted a major international conference on 'Global Trade and Farm Animal Welfare' in 2009, but there has been little subsequent follow-up action. Menéndez-González and Reist (2011) have reviewed the trade implications of cloning of farm animals, in addition to animal health and welfare, food safety and ethical considerations, and emphasised the difference in the approach taken by the European Food Safety Authority in the EU and that taken by the United States Department of Agriculture.

Van Horne and Achterbosch (2008) have focused specifically on the impact of EU poultry production standards on world trade. Recent changes to bird density in EU production standards for broiler hens are considered to have minimal impact on global trade as differences in the standards in the EU and those countries exporting to the EU are limited. However, increases in space requirements for layer hens in the EU will result in these standards being significantly different to those of other exporting countries. This is expected to have a larger effect on global trade and the EU was considering the use of labelling or financial mechanisms such as taxes or tariffs to address the potential effects. However, it is concluded that a:

European label, tax or tariff based on animal welfare performance would be contentious under international trade laws and would be open to challenge under WTO rules if considered discriminatory against producers of livestock products that wanted to export to the EU.

Consideration of these constraints is sometimes specifically required by national legislation. For example, Section 73 (3) of the New Zealand Animal Welfare Act 1999 (MAF 1999) requires that the National Animal Welfare Advisory Committee (NAWAC) may, in exceptional circumstances, recommend minimum standards and recommendations for

best practice that do not fully meet a number of obligations enshrined in the Act. In making such recommendations, NAWAC must have regard to:

- The feasibility and practicality of effecting a transition from current practices to new practices and any adverse effects that may result from such a transition;
- The requirements of religious practices or cultural practices or both; and
- The economic effects of any transition from current practices to new practices.

Matthews (2009) reviewed the process of government policy formulation for layer hen production systems in New Zealand, and outlined how, in 2005, NAWAC had used section 73 (3) to recommend minimum standards that did not fully meet the requirements of the Act. NAWAC also recommended in the 2005 code, that a review of the requirements for the cage systems that are included in the code be performed in the near future, and this review is now underway. Recent New Zealand decisions in respect of religious slaughter and intensive systems of pig production have, however, shown that such a legal requirement does not preclude a final policy decision biased towards improving animal welfare. In contrast, international treaty obligations have led to the continuation of practices not supported on animal welfare grounds such as the export of veal calves from the UK. It is also argued that intensive production systems are necessary to meet food safety, food security and environmental protection objectives (Synovate 2011).

Examples of improved animal welfare in New Zealand

Specific examples of situations where improvements have been made to animal welfare, in the face of sometimes competing societal priorities, include the following.

Tail docking of dairy cattle

This practice was introduced in New Zealand in the 1960s for public health reasons; to reduce the incidence of human leptospirosis in the dairy industry. A programme of cattle vaccination was also implemented to control this disease, and it is now thought that vaccination of the cattle was responsible for the dramatic reduction in the incidence of this disease in humans over subsequent decades, with the effectiveness of tail removal in controlling this disease being questioned (Mackintosh *et al* 1982). Research findings in the 1990s then demonstrated that tail docking had no significant effect on milk quality (Schreiner & Ruegg 2002) and that the absence of the tail, and lack of fly control, had deleterious effects on productivity. Tail docking has now been successfully replaced by switch removal (MAF 2005).

Traps and devices

Recent New Zealand legislation has prohibited the use of steel-jawed leghold traps, such as those used for the control of vertebrate pests (MAF 2007a) and provided for a phase-out of glue-board traps for rodent control (MAF 2009). In both cases, economic and conservation considerations had to be carefully addressed in the final policy decision.

Religious slaughter

Influenced by the results of EEG-based research studies (Gibson *et al* 2009; Mellor *et al* 2009) and a wish to ensure policy consistency when addressing the subject of religious slaughter, the 2010 New Zealand Animal Welfare (Commercial Slaughter) Code of Welfare requires that all animals be stunned prior to slaughter, including those slaughtered for religious purposes (MAF 2010b). However, following the release of the code of welfare, as a result of legal action, this policy requirement was modified *pro tem* to exclude the limited numbers of chickens and sheep slaughtered by the shechita method for domestic consumption only (MAF 2010c).

Live animal export for slaughter

The New Zealand Customs Export Prohibition Orders of 2007 and 2010 (MAF 2007b, 2010a) do not totally prohibit the export of live animals for slaughter, but 'raise the bar' significantly in terms of the steps that must be taken, information that must be provided and arrangements which need to be made to mitigate the animal welfare risk associated with such export activity. In this case, the final policy decision had to take into account individual economic benefits, national economic risk and international treaty obligations.

International role of the OIE

The OIE has indirectly contributed to animal welfare since its establishment in 1924, via its global contribution to improved animal health. The OIE's specific, and overt, involvement in animal welfare is, however, relatively recent and was outlined by Bayvel in 2004 (updated by Bayvel & Cross in 2010).

In formulating the third OIE strategic plan, for the period 2001–2005, animal welfare (along with animal production food safety) was identified as an emerging domestic and international strategic issue for OIE members in all five regions.

The OIE animal welfare mission is:

To provide international leadership in animal welfare through the development of science-based standards and guidelines, the provision of expert advice and the promotion of relevant education and research.

The OIE seeks to achieve this mission through the promotion of science-based understanding of animal welfare; the utilisation of appropriate expertise; consultation with relevant stakeholders; recognition of regional and cultural dimensions; by liaising with academic and research institutions and by using communication tools that are appropriate to all relevant audiences.

The OIE draft guiding principles for animal welfare are:

- That there is a critical relationship between animal health and animal welfare;
- That the internationally recognised 'Five Freedoms' provide valuable guidance in animal welfare;
- That the internationally recognised 'Three Rs' (reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science;

- That the scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible;
- That the use of animals in agriculture and science, and for companionship, recreation and entertainment, makes a major contribution to the well-being of people;
- That the use of animals carries with it a duty to ensure the welfare of such animals to the greatest extent practicable;
- That improvements in farm animal welfare can often improve productivity and hence lead to economic benefits; and
- That equivalent outcomes (performance criteria), rather than identical systems (design criteria), be the basis for comparison of animal welfare standards and guidelines.

The 2005 General Session of the OIE supported the commencement of work plans in five new areas of animal welfare: aquatic animal welfare; laboratory animal welfare; wildlife welfare; stray dog control and production animal housing. In addition, guidelines for the slaughter of animals for human consumption; for the killing of animals for disease control purposes and guidelines for the transport of animals by sea and by land were adopted unanimously (guidelines for the transport of animals by air had already been included in the Terrestrial Animal Health Code).

Additional guidelines have been adopted since 2005 including those outlining requirements for the control of stray dog populations; for the transport of farmed fish; the slaughter of farmed fish and the use of animals in research and education.

Current OIE priorities include the development of standards for production animals; the role of private standards in animal welfare; issues relating to international air transport of research animals; the relationship between animal welfare and food safety; the development and implementation of Regional Animal Welfare Strategies; the inclusion of animal welfare in the Performance of Veterinary Services (PVS) tool; support for animal welfare initiatives via the Global Animal Health and Welfare Fund; animal welfare and disaster management; wildlife animal welfare issues and planning for a third Global Conference on Animal Welfare to be held in Asia, the Far East and Oceania Region in November, 2012.

Animal welfare has continued to receive emphasis in the fourth and fifth OIE strategic plans. The subject can now be considered as 'core' OIE business, with animal welfare explicitly included in the OIE's global mandate "to improve animal health, veterinary public health and animal welfare worldwide".

Change management paradigms

Bayvel and Cross (2010) refer to the animal welfare change management challenge as follows:

Unfortunately, when animal welfare is debated, individuals and organisations are often arguing from quite different definitional orientations and change management paradigms. The concept of incremental, evolutionary change with a commitment to continuous improvement,

as individual organisations and countries proceed along an animal welfare 'journey', is vitally important. Likewise, acceptance of the need for, rather than resistance to, such incremental change with full ownership and buy-in from affected animal user groups is the policy approach inevitably adopted by governments around the world.

Animal welfare implications

Despite the myriad of issues influencing progression in animal welfare, the animal welfare journey has a clear and positive direction of travel and ongoing improvements, albeit with compromises and trade-offs along the way, will become increasingly important to meet current and future societal expectations.

Conclusion

Over the last 60 years or so, the concepts of the Three Rs and the Five Freedoms, the UK Brambell Report and seminal texts by authors including Harrison, Singer, Rollin and Fraser (all cited in Appleby & Hughes 1997) have had a significant effect on societal attitudes and the shape of policy and legislation. The rate of animal welfare change has, however, been gradual rather than dramatic. This reflects the complexity of the issues, when viewed from a public policy perspective, versus the relative simplicity of the issues when viewed from a purely moral or ethical perspective.

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