Parliamentary Report nr12 Regarding animal husbandry and animal welfare

Chapter 1

Background

Norway was one of the first countries in the world which had its own Animal Protection Act as early as 1935. Applicable Norwegian law from 1974, and preparations for that, were developed at the end of the 1960s. Even though the Act has been changed several times, it is over 30 years since there has been a thorough review of the conditions which the Act regulates, i.e. a review of all animal care in Norway evaluated from an animal welfare perspective.

During the course of 30 years society has changed in most areas, including views about and attitudes towards animals. There have been great structural changes in Norwegian animal husbandry even though these changes have been less expressed here than in many other countries. The number of farms with animals is greatly reduced. The herd size has increased, and so has efficiency. New species such as deer and ostrich, but above all farmed fish, have become a part of Norwegian husbandry. Increased mechanisation has meant that the time spent on each herd has gone down and as a result the contact between people and animals has reduced. It was common earlier that several people worked on the farm and with the animals, but now it is often one person who has the daily responsibility for care and control. This makes the situation more vulnerable and demands greater awareness in order to prevent animal tragedies. The number of family and sports animals has increased.

Academics' knowledge concerning animals and animal behaviour has increased significantly. Ethology (knowledge about animal behaviour) has grown to become an acknowledged subject amongst the natural sciences. We have increased knowledge concerning the animals' natural behaviour and needs and how stress and other external influences alter their behaviour and ways. This should have consequences for the regulatory framework.

Increased distance to and reduced knowledge about animal husbandry is however symbolic of larger groups of the population. Despite this we are increasingly interested in animal welfare issues. The media focus to an increasing extent upon animal care and animal welfare. Consumers want to be assured that the animals from which the food they eat origin, have had a good life whilst they where alive, during transport to the abattoir, during the stay at the abattoir and that they are slaughtered in an ethically acceptable way. There is an increasing demand for labelling and traceability. This same development can be seen in the majority of industrialised countries. This has led to an increased difference in the opinion about animals and requirements concerning care of animals between developing countries and industrialised countries.

The interest for animals and animal welfare has led to an increased number of approaches to the managing authorities and to the politically responsible authorities.

This has led to animal welfare being placed on the political agenda to a much greater extent than before. The level of detail in such approaches is extensive.

With this in mind The Ministry of Agriculture wished to carry out a broad review and evaluation of all animal care in this country from an ethical and welfare perspective. The work has been carried out in a transparent manner with significant engagement from individuals and groups in society. The report covers all species which are covered by today's Animal Protection Act. Honey bees, molluscs and hobby invertebrates are not covered.

The Government wishes with this report to present the result of the review, including proposals for long term goals and actions, to the Parliament (Storting) for further discussion.

Chapter 2

Excerpts and summary

2.1 The work with the report

Chapter 3 gives an introduction to the work with the parliamentary report and the method's which have been used. The work was organised as a project and The Norwegian Animal Health Authority was a close cooperating party (stakeholder). There have been held five hearings in the form of meetings about central themes and the project group has received 199 written comments from institutions, organisations and individuals.

2.2 Fundamental knowledge and development parameters

Chapter 4 concerns society's attitudes towards animals through various eras and trend's which influence our cultural circle today. The view of animal welfare from the Lapp tradition is specifically focused upon. It gives a status for the biological knowledge concerning animals and a definition of the term animal welfare.

Chapter 5 covers the main points in the development of Norwegian animal husbandry over the last 50 years, with the main focus on the development parameters which have an impact on animal welfare. The chapter also describes various models for the future of Norwegian animal husbandry.

2.3 The situation today

Chapter 6 is a description of the status for Norwegian animal husbandry today, with a particular focus on the conditions which have an influence upon animal welfare. With the exception of farmed fish, laying hens, slaughter poultry and to some extent slaughter pigs, Norwegian production animals are kept in small units where it is possible to give the individual animal individual attention.

Chapter 7 describes Norwegian animal welfare legislation and enforcement of this legislation. The Animal Protection Law's section on aim and scope can be compared to the equivalent in the other Nordic countries and a summary of Norwegian legal practice in the event of a breach of animal protection regulations is given.

Chapter 8 covers some international forums which deal with questions regarding

animal welfare. In addition it covers the international conventions which Norway has ratified and which have a direct or indirect influence on animal welfare. Norway has ratified and implemented all of the Council of Europe conventions which concern animal welfare. The EEA Treaty also covers animal welfare and Norway complies with the treaty in this area through the current legislation.

2.4 Goals, actions and strategies

Chapter 9 describes The Norwegian Ministry of Agriculture's goals and activities for the coming years to improve animal welfare. The Government has proposed an ethical platform which shall be guiding for attitudes to and care of animals in our society. This ethical platform provides for the following:

- Animals have a value of their own. Handling of animals shall be carried out with care and respect for the species. This involves having extensive consideration for animals' natural needs and to actively prevent sickness, injuries and pain.
- Persons who have animals in their care shall have knowledge about the animal's behavioural needs and its needs concerning nutrition, social and physical environments. Persons who have animals in their care have responsibility for the animals' basic needs being taken care of, and that they receive correct treatment in the event of sickness and injury.
- Animals shall be kept in environments which give them a good quality of life.
- Healthy functioning animals physical and mental shall be a condition for all types of breeding.
- Before new technological solutions are taken into use it must be proven probable that these solutions do not reduce animal welfare. New operational methods must have as little negative impact on animals as possible.

The Norwegian Ministry of Agriculture has developed the following main goal for Norwegian animal care, based on the ethical platform:

Healthy animals in good environments

In the work with animal welfare the following long term goals shall be a driving aspect for all types of animal care:

- The shaping of the environment shall respect the animals' behavioural needs.
- Animals shall not be subjected to unnecessary pressures.

In order to reach this main goal the Government has developed concrete long term goals for each species and in various central areas which concern various species. In addition the Government has defined five strategies which focus upon:

- Competence among animal owners
- Knowledge development and distribution
- Appropriate legislation and competent enforcement
- Freedom of information and consumer communication
- International cooperation

The work with the prevention of animal tragedies which are caused by a lack of care will receive increased attention. The cause of such tragedies is often a combination of events which are difficult to prevent through individual actions. However, the strategies which have been developed will, in view of the Government, strengthen the

work to hinder such animal tragedies. This involves amongst others actions to strengthen owners' competence, professionalize the animal welfare management and introduce a requirement to report for all who become aware of situations where the care of animals has been neglected.

In order to ensure competent owners, the Government has proposed to include a requirement for documented competence for industry based owners responsible for animal husbandry as part of the Animal Protection Act. The implementation of such training will be the responsibility of industry organisations which shall provide a professional arrangement which is approved by the authorities. The effect of this voluntary training will be evaluated after a five year period and the Ministry will consider public actions directed at animal owners who have not completed the training.

The Government will encourage representatives for owners of family and hobby animals to tailor information and competence building towards members in this area. In order to ensure necessary knowledge development and sharing the Government will consider:

- Strengthening research contribution from the existing competence environment within animal health and animal welfare. Norway has a particular responsibility with regard to welfare of farmed fish.
- Establishing a system for advice (academic and other) to the administration within animal care and animal welfare.
- Continue supporting the Council for animal ethics as an independent group with responsibility to advice the administration in ethical questions in addition to being a catalyst for an ongoing public debate regarding ethical standards for animal care and the handling of animals.

In order to ensure an appropriate regulatory framework and competent enforcement the Government aims to:

- Carry out a thorough review of the Animal Protection Act which amongst other things shall ensure that the Act defines the main standards and framework for animal welfare whilst the more operational criteria will appear in secondary legislation. The review will also investigate authorisations for a more effective prevention of animal tragedies, amongst others a requirement for competence of animal owners, a professionalizing of animal welfare management and a requirement to report for all who become aware of situations where the care of animals is neglected. It is the Government's view that the requirement to report should also apply to professional groups who are covered by a legal confidentiality duty.
- Strengthening and making more effective enforcement of animal welfare by
 management authority being given to the Ministry of Agriculture who then
 delegates it to the Food Safety Authority. Animal protection will be an
 important task for the new Food Safety Authority. Animal protection
 committees will continue as an advisory organ for the executive authority.

In order to ensure an appropriate freedom of information and consumer communication the Government aims to:

- Ensure that the managing authority provides a yearly status report regarding animal welfare and discuss this with industry and consumer organisations in appropriate meeting places.
- An introduction to ethics and animal welfare in schools (children aged 6 to 16 years)
- To provide for product marking which include animal welfare issues

Important frameworks for animal welfare will increasingly be decided at international level through international negotiations. The Government therefore will consider an active international participation in order to strengthen animal welfare through amongst other ways:

- Active participation in the Council of Europe's and the International Animal Health Organisation's (OIE) work with animal welfare.
- Ensure better opportunities for consultations for Norway within the EU institutions with responsibility for animal welfare.
- Evaluate position in the WTO negotiations concerning animal welfare.

The Government has developed the following important goals and actions in cases where several species are involved:

- A review of different breeding programs with respect to the animals' health and welfare.
- Requirement for the installation of fire alarm equipment in large barns within 5 years.
- A review of the regulations which regulate the transport of animals, in particular evaluate preparation of transport, journey time and opportunities to stop.
- A review of the regulations which regulate the handling of animals for slaughter with a view to strengthening the consideration for animal welfare in addition to ensuring a national emergency slaughter provision.

The Government has developed the following important goals and actions for the particular species involved:

Aquatic farmed animals

- Focus on research to develop good welfare indicators for farmed fish and better pain relief methods at the point of slaughter.
- Strengthen consideration to animal welfare by a review of exiting standards for the regulation of production.
- Reduced occurrences of deformities and other production related suffering.
- Reduced mortality of smolt in connection with transport and release into the sea.

Cattle

- Free range for all cattle within 20 years and ban against building of barns with pens from 2004.
- All cattle shall have access to a place to lie with a soft base from 2005.

• All cattle with the exception of un-castrated ox over 6 months shall within 10 years be outdoors in the summer period.

Pigs

- Free range for all pigs, including sows in connection with farrowing, within 10 years.
- Enhanced internal environment and a food ration which gives a satisfied feeling.

Sheep and goats

- Reduced loss to wild predators through use of political resources which can increase to a large extent the physical separation between wild animals and grazing animals.
- Regulation of the care of sheep and goats including a regulated description of responsibility for looking after grazing animals.
- Reduced occurrence of chronic infection diseases in goats.

Tame reindeer

- Framework conditions for reindeer shall ensure agreement between the number of animals and grazing resources and adequate areas for traditional herding.
- Reduced loss during grazing crises and reduced loss to wild predators shall be ensured through a review of existing tools and increased competence in crisis feeding.
- Regard to animal welfare shall be strengthened in connection with transportation and periods in working fences.

Poultry

- A principle goal of free range for laying hens but implementation is reliant of more appropriate systems.
- Through work at an international level, encourage breeding goals in international breeding which improve the welfare of the animals.
- A review of the regulations for slaughter chickens and turkeys with a view to reducing the density of the populations compared to the levels today.

Fur production animals

- Strengthen welfare of mink and fox through a review of existing legislation with a focus on systems which better cover behavioural needs. New requirements shall be implemented within 10 years.
- Breeding and care for foxes must encourage trusting animals and avoid defects
- Reduced use of force and particularly stressful situations for foxes, ban against live animal exhibitions.
- Find alternative methods of killing minks.

Dogs and cats

- The organisations are requested to develop guidelines for care.
- Regulation of special dog care such as pulling dogs or other large scale dog care. Strengthened protection of competition dogs.

- Consider regulation of breeding of dogs.
- Ensure a better control of the cat population through the introduction of an official requirement for ID marking. The control of the wild cat population must be defendable from a welfare perspective. Sterilisation and the release of cats without owners depend on the organisations and individuals taking responsibility for the feeding of these animals.

Other family/hobby animals, circus animals and other exhibition of animals

- A list of exotic animals which are permitted as family (domestic) animals will be developed.
- In connection with any sale, animal retailers must provide information on the particular animals' needs.
- A list of animals which are permitted to be displayed at circuses will be developed.
- Keeping of animals in zoos and other displaying of animals will be regulated.

Animals used in research and education

• The establishment of a national platform for alternatives to animal testing.

Wild animals

- A better coordination of the Animal welfare act and the Wild animal act.
- A requirement in the Animal welfare act for approving of hunting methods and equipment.
- Strict limitations of the use of catch and release as a method of fishing.
- A total ban on the use of barbed wire as a fencing material in animal enclosures.

2.5 Economic consequences

Chapter 10 describes important economic consequences of the various proposals.

Chapter 4

Animals and Society

This chapter covers, in 4.1., attitudes to animals and ethical evaluations which have been dominant through various eras and in various cultures, including the Lapp culture, and trends which influence society. Chapter 4.2 covers parts of the biological knowledge concerning animals which are relevant for the status of animals and in 4.3 the term animal welfare is covered.

Summary

- Ethical views in relation to the acceptable treatment of animals have changed over time and vary from culture to culture.
- The population are generally concerned that animals shall be treated well. Good animal welfare can be considered as a collective benefit for society.
- Science has recently presented a lot of knowledge about animals' sense awareness and their behavioural needs.

- There are several definitions of the term animal welfare. In this report we have chosen to use the wider definition where the Brambell Commission's five freedoms for domestic animals (see 4.3.1) form the foundation. The starting point is the individual species' special biological needs. The animal's ability to feel and its ability to master the environment are prioritised to the extent that such information is available.
- Important information to be able to assess the animals' welfare includes health, physiological parameters and behaviour.

4.1 Attitudes to animals

4.1.1 Use of animals, responsibility for animals and the basis for empathy

Animals are an important part of our society and our culture and have been from time immemorial. Humans keep animals in order to satisfy basic needs for food and clothes but animals and products from animals are used for many other purposes. In today's society we care for animals not least for companionship, entertainment and sport. The areas of use are being extended constantly. For example dogs are trained in new help functions such as finding leaks in pipes to warning their owner about a coming epileptic fit. Gene technology has made it possible for us to tailor and use animals as producers of medication and organs for transplant medicine. In some of these cases the animals represent pure objects for our purposes whilst in other situations the relationship is first and foremost that the animal is a living being and friend that gives satisfaction and joy.

Regardless of the area of use, animals are left to receiving the care and caring that they get. People have taken over control of the whole of an animal's lifetime, and many will state that this at the same time represents a special responsibility for ensuring domestic animals' welfare.

The majority of people can engage themselves and understand other people's situation. The ability to understand, or empathy, is seen as an important human quality. This applies also in relation to animals. Not all animals have the same ability to stimulate people's sympathy and concern. The animal species' status in society is significant amongst other factors. Species which are considered as intelligent by virtue of human bench mark, e.g. dolphins and apes have generally higher status than 'stupid' animals. The size of the animal also seems to have a certain significance. Pain and suffering for a large animal such as a horse normally receives more attention that a similar condition in a small mammal. Animals with infantile characteristics such as large eyes and butte shapes which have an easily understandable body language and suffer, e.g. a whining puppy, awaken our caring side easily. A silent fish without expression is more difficult to identify oneself with and does not stimulate such feelings so easily. The more we identify our own feeling in animals the more we are able to care. Different species have different body language and forms of expression and our ability to understand can vary. Knowledge regarding specie specific behaviour makes it more possible for us to read the animal's signals and easier for us to understand the animals situation. How well one knows the animal as an individual also has a significance.

In an animal farm where there is a large operation, the foundation for empathy is often reduced: Hundreds, perhaps many thousands of animals together in a barn or fish farm net leads to the individual animal being invisible. The animals live a consistently shorter life than previously was the case and the keeper's time use per animal has been significantly reduced. All this reduces the opportunity for contact and recognition between the keeper and the individual animal. It is perhaps easy to react with disgust and not thoughtful consideration when one sees cage after cage with featherless frightened hens or congestions of filthy slaughter pigs. Animals which are kept in a non-stimulating environment do not develop or show their characteristics, something which contributes to people easily losing respect for the animals and consider them as machines.

Mahatma Ghandi once said that "The greatness of a nation and its moral progress can be judged by the way its animals are treated". Society's treatment of the weakest, the animals, reflects the society's humanity. A number of investigations have confirmed that concern for animals also leads to greater concern for other people. However, animal welfare is important first and foremost for the animals themselves. Perhaps the need for protection is greatest for those species which do not automatically stimulate our concern but are considered neutral or repulsive.

4.1.2 Animal Ethics – a short history

Moral is the individual's awareness of right and wrong which is the basis of ones own actions and the judgement of others' actions. Ethics are the theoretical foundation for the moral, the philosophical thoughts about the foundation for moral stand points. Within certain areas the value foundation is generally valid and independent of era and national borders. For example the majority of cultures and religions have common standards concerning lies, theft and murder. With regard to other conditions one sees that the common understanding not only varies between cultures but also changes over time within a cultural circle. This is the case with regards to amongst others slavery, women's rights and homosexuality. Attitudes to animals and animals' status also show large variations between different cultures and eras.

Religion and animals

Religions will as a rule have a definite fundamental view regarding the relationship between people and animals. The big religions coming from the Middle East i.e. Judaism, Christianity and Islam are anthropocentric to the extent that they look upon people as special and outstanding in the Creation. This anthropocentric fundamental attitude does not, however, exclude a well developed sense of human treatment of animals e.g. from the perspective that people are the managers of the Creation. At the same time there are many examples of brutal and disrespectful treatment of animals in societies which are based on these anthropocentric religions.

It is difficult to find any consistent attitudes to animals in the East's big religions and philosophies. Buddhism does not have a clear distinction between humans and animals as for instance Christianity does, but is instead concerned with the unbreakable relationship between all things and objects in the cosmos. The majority of monks are therefore vegetarian. On the other hand, being a human is seen as an advantage to reach the final goal, nirvana, and it is considered as misfortune to be reborn as an animal. Hinduism gives cows a very special status as holy animals and

some Hindus are vegetarian. Confucianism, which is an important foundation for ethic and moral in East Asia, is on the other hand very anthropocentric and has at the same time no conception of a creator. Therefore there is no conception of man being part of the Creation and responsible for that which has been created.

In some nature religions animals are regarded as brothers and sisters of mankind and that one lives in a kind of "harmony" with nature. This does not mean that man cannot take the life of an animal, but there are often rituals connected to hunting where one shows respect for the animal.

Religion contributes to forming a fundamental basis for a society, but there is no easy relationship between the religions' philosophies or basic attitude and society's moral and ethics in the treatment of animals. Measured by our standards, many will react strongly against the mistreatment of animals in the East, but there are also distinctive differences between the attitudes within Europe. Cultures which are dominated by a religion may have a practice which appears very different to the ideals one can derive from the religion's fundamental idea, because other factors than religion determine how a society treats animals. Even though the starting points are very different, the reality is that animals have been used and continue to be used and developed for the benefit of mankind to a varying degree in all cultures.

Animals' moral status

The question concerning the extent to which man, with respect to animals, shall proportion weight, and in which case which weighting is an old question. The problem is discussed amongst other places in The Old Testament, by the Greeks in antiquity, and has been a subject of debate in society through the ages.

In philosophy the term moral status is often used to describe who is covered by the moral rules. Moral status describes who will be considered in a moral evaluation. To be a moral actor is something else. The one who is a moral actor is expected to follow the moral rules and act morally. The majority will claim that mankind always has a moral status regardless of whether the person is capable of acting on a moral basis. It may for example be a baby or an adult suffering from dementia. Nor are animals moral actors. But the question is; do animals have a moral status?

Aristotle (384-322 BC) said that to have reason must be a perquisite for having moral status. Since animals cannot be regarded as beings of reason, it follows that they cannot have moral status. Far from all agreed with Aristotle, but his views played an important role in Antiquity and where referred to by Christian academics such as Augustine (354-430) and Thomas Aquinas (1225-1274). Their view was also that animals did not have a moral status. Other Christian academics such as Francis of Assisi (1182-1226) disagreed and personally showed great care for animals and referred to animals as brothers and sisters. More recently it could be appropriate to refer to Albert Schweitzer who built his ethics upon respect for animals.

The view of animals has varied over time even within the Christian cultural circle. In the middle ages there are examples of animals being regarded as morally responsible for their actions, brought before the counts and sentenced. In connection with witch hunting there was at the same time a large scale hunting of cats, particularly black cats, which were considered to be devils in disguise.

In the 17th century a very mechanical view of nature developed. The philosopher Descartes (1596-1650) strongly distinguished between people and animals, and he compared animals to machines. If the machine model was applied unconditionally, it could lead to the view that if a dog is yelps when it is kicked it is not because it is in pain but more a problem with "creaking machinery". Therefore, to torture an animal was not seen as more immoral than kicking a door open.

The leading philosopher Kant (1724-1804) also considered reason a foundation for his opinion that humans are the only creations with moral status. However, Kant insisted that animals should be treated well because brutality against animals could lead to brutality against people.

Feelings were first seen as morally relevant in the 18th century by philosophers like Hume (1711-1776) and Bentham (1748-1832). Bentham, who was a utilitarian, ¹ claimed that because not only people but also animals can undoubtedly feel pain, people have a moral responsibility for animals. The discussion regarding animals' moral status has not only been centred on their ability to think, but also their ability to talk. Since it is difficult to avoid the fact that at least some animals have some form of language, the question of syntax, i.e. sentence construction, has been brought into the discussion concerning animals' status. Bentham rejects these arguments by stating that the decisive element is not whether animals can think or speak, but whether they can suffer.

Other philosophers and theologists have gone in other directions than Bentham and preferred an extended definition of moral where people not only have moral duties to living animals, but the whole of nature. Arne Næss' deep ecological movement is an example of this. In the Nordic countries elements of such a communicative view concerning nature are widespread. Nature has a value of its own and not just with respect to its usefulness for mankind. An understanding of mankind as a part of an ecological totality is mirrored also in the expression sustainable development. The expression means that resources and the foundation for life shall be protected for the future. Not only people and animals living today shall be taken into consideration, but we have an independent ethical responsibility for the coming generations.

Modern animal ethics

In our part of the world the treatment of animals continues to be a current and contested issue. The use of animals in research and industrialised farming has generated reactions.

Today's extreme animal activists build on utilitarian view, where people's and animals' experience of pain and desire shall be regarded as equal in an ethical calculation, or a rights philosophy which protects the animals integrity and independent right to life. The leading supporters of this view are at present Peter Singer and Tom Regan. Both of these philosophers have the view that no morally relevant qualities (such as feeling of pain, ability for rational thinking, free will, self awareness or language) exist in all humans but in no animals. At least animals who

¹ Utilitarian (use ethic): Philosophic direction where the correct action is the one which leads to most happiness/desire and least suffering and pain for as many as possible.

can experience desire and pain must be included in the moral "gang" and be given a moral status. Since animals in a similar way to small children do not have the ability to think and act morally, they are not moral actors but moral objects which have the right to be treated morally. Their interests must be protected by others, but must be handled as an equal party in an ethical calculation. To use species as a criterion to limit the moral "gang" in relation to animals, which has been done in order to include people without language, ability for abstract thinking etc. is reprehensible in the view of these philosophers. They are of the view that to treat animals differently on the basis of species is in principle the equivalent to race and sex discrimination. It is their view however that mankind's interests are largely more complex and extensive than animals'. Therefore, in practical calculations, a human life will be worth more than an animal's life.

Many of these points of view have sympathy outside of the more extreme circles. Two out of three young English youths reject all forms of hunting, fur farms, animal experiments including medical research and industrial farming (Daily Telegraph 1994, interview of 1019 young people in the age group 14-19 years). In a Norwegian survey (LOS centre 1998), approximately the same number from a representative sample of 1000 persons agreed (41%) as disagreed (35%) with the statement "from a moral perspective animals should have the same rights as people". In an opinion poll in the USA in 1995 38% strongly agreed and 28% agreed with the statement "an animal's right not to suffer is as important as a person's right not to suffer" whereas 12% disagreed strongly. The responses should be viewed as an intuitive gut feeling rather than an ethical standpoint because the majority (71%) at the same time stated that they had a significant consumption of meat and fish. Consideration for animals is nevertheless one of the most important reasons for an increasing proportion of the population in the western world stopping eating meat and possibly rejecting the use of animal products.

A widespread moral view in Norway today takes elements from utilitarism and rights philosophy. It is not in principle wrong to keep and slaughter for important human needs. The most important aspect is how the animals are cared for and treated whilst living and that slaughter takes place with as little pain as possible. Sufficiently great human need can therefore be a defence for animal rights to be set aside, but even human need cannot defend an unlimited use of animals. The problem can be summed up in the following way: How great a disadvantage or level of pain is it justifiable to subject an animal to, in relation to the profit for humans? In light of the wording of the Animal Protection Act's section regarding the purpose of the Act; One shall treat animals well and take into consideration the animal's instincts and natural needs in order that there is no danger of it suffering unnecessarily, the question is: What is unnecessary pain? Because it is not illegal to subject an animal to pain, it is unnecessary pain which is banned. In some areas the distinction between what is considered to be necessary and unnecessary pain is drawn in the legislation. In Norway for example it is not permitted to use a whip as encouragement device in trotting races or other horse races. It is permitted to subject animals to pain for important medical research purposes according to the legislation regarding animal testing. It is also permitted to keep animals in small cages regardless of whether the purpose is company (house birds), food production (laying hens) or other industrial activity. Eidsivating lagmansrett (a regional appeal court) concluded in a case regarding the legality of fur farms (1998) that fur farming as it is conducted today is

not contrary to the Animal Protection Act despite the fact that the confinement can be characterised as unethical. The judgement raises a fundamental question concerning the value of having an Animal Protection Act which allows the unethical containment of animals.

4.1.3 The view of animals and animal welfare in Lapp culture tradition

As a part of the work with this parliamentary report, the Ministry of Agriculture commissioned a report from the Lapp Postgraduate College regarding animal protection in the Lapp culture. The report exists as an unpublished appendix to this report whilst a summary is given below:

In Lapp culture ideas of people's and animals' place in the Creation exist from ancient times; regarding how man and other creations are both connected and disconnected from each other, the question regarding what man is and the arrangement man and other creations are a part of. According to the traditional conception nature, as something man is dependant upon, has both a spiritual and a material aspect. Within the traditional hunting culture all wild and living animals are holy. Certain ceremonies and strict rules where connected to the hunt. The purpose of these rules was partly to protect the population and partly that each individual animal should be respected. The idea that nature has strict rules also regarding the treatment of individual animals is very prominent. Concrete mechanisms of punishment could strike one who did not have enough regard for the animals' welfare. Man could not just follow his own will.

Traditionally the human's relationship with animals and the norms for treatment of animals have been communicated through tales or myths, joik lyrics (joik is a chant on a monotone, used by Lapps to tell the story of a person or a past event) and rituals, in addition to the individual's experience through his own and other people's contact with animals in everyday circumstances. This way of thinking has been continued and reformulated in relation to both reindeer and the proper domestic animals. These norms are not written down in the form of laws and regulations, but they can be interpreted from traditional materials and from the languages terms. Authors such as Johan Turi and Anta Pirak have touched on the theme more explicitly in their observations of everyday Lapp life.

In Lapp thinking regarding animal welfare there is an ethical distinction between totally free animals, free animals and domestic animals dependent on the level of the individual animal's independence and its opportunity to look after itself. A domestic animal's life situation is totally dependent upon people and it is subject to people's good will and care whilst in addition being denied the possibility of looking after itself. In the myths the relationship with domestic animals is explained as such; the animals have entered into binding contracts with man regarding their status.

As a starting point all creations have equal rights and have a claim for its share of things which are either offered or available and necessary for its existence. The phrase totally free animals includes various categories of creatures such as

prey animals (which people hunt and have a use for) predators (which people hunt for and in some situations may have a use for), and insects (which people also may have a use for in some situations). These animals constitute a purpose alone and cannot be considered only as means for human purposes. These animals are not in the custody of people and therefore there are no tales concerning the agreement on contracts between people and totally free animals.

Even though free animals are not in the custody of people and vice versa, neither party can do whatever they please towards each other. Standards for behaviour exist between people and animals. In the reindeer industry even the wild animals which prey upon reindeer (boazu) are not considered first and foremost as "pests". In their just place in the order of creation they have a right to their share which I necessary for their continued existence, regardless of the benefit for people.

Regarding freedom for animals, there is a particular term luohtu as the first part of compound words meaning partly "the wilderness, wild" and partly "(domestic animals') (summer) freedom in nature, summer pastures (abstract)". This term is obviously old and illustrates very well the relationship between the status of domestic animals in a strict sense (animals which are kept in buildings) and other animals out in nature.

The care for the animals has been and is fundamental - for reindeer, cows, horses, sheep, goats, cats and other domestic animals. The animals have at all times the highest priority, both because of their usefulness, and also for ethical reasons.

Everywhere where people have domestic animals the daily life and daily rhythm of the humans are based upon animals' needs. In the daily work, animals and people were more equal as they both had to work under the same conditions. Domestic animals literally lived under the same conditions in the same turf hut, often with a common entrance but in two different rooms. This created a common foundation of experience which brought people much closer to animals than one can imagine today.

In the care of domestic animals there are many proofs of rules and examples for example concerning how they should be treated and protected. Man also has a duty to reindeer and even to wild animals in certain situations to protect them from attack and injury.

The reindeer finds itself being in a position between a totally free animal and a domestic animal. Ideally the pastoral nomad should just follow the reindeer and protect it from external threats, and distract the reindeer as little as possible both for the benefit of himself and the reindeer. To herd (guopohut) reindeer means to encourage a reindeer to graze (guohtut). The work of the people consists of controlling the herds by maintaining a level of tameness within the animals and by predicting the animals' movements based on knowledge of their natural behaviour connected to seasons, pastures and terrain. Reindeer is an animal which naturally belongs to the landscape where

reindeer herding (Iuohtu) takes place and as far as the reindeer herders are concerned the reindeer is free, mobile and independent.

If the grazing land becomes inaccessible due to ice formation, the herders allow the reindeer to spread out more uncontrolled as the reindeer is after all considered the best at finding pastures itself. It is best in all emergency situations that the reindeer is left to nature (Iuohtu). This attitude that reindeer has its foundation in Iuohtu is fundamental to understand the attitude towards emergency feeding and how that is practised. There is also ethical resistance against introducing reindeer to feeding and thus making it dependent upon people. This is considered as an intervention which can render the reindeer helpless in relation to its natural seasonal movements and adjustment to Iuohtu. Emergency feeding/additional feeding in short periods under difficult climatic conditions has been accepted on the condition that this does not lead to the reindeer becoming dependant upon permanent feeding or that it becomes unable to manage in its natural environment (Iuohtu) as a free, mobile and independent creature.

It is only in situations where the reindeer is totally within the custody of people and denied its freedom that the reindeer in an ethical sense appears as a domestic animal and should be treated as such. Typical situations are situations where single reindeer are used to pull carts or pack reindeer, situations where individual reindeer are captured and exposed to human treatment for example marking, milking, castration, slaughter, and in situations where the reindeer is captured in a working pen. Such situations are covered by informal ethical guidelines.

The most important change in the industry which has implications on animal ethics is the motorisation of reindeer operations and the need for transportation of live animals. New methods of transport have meant that the animals are handled more often than before. Together with other changes in reindeer operations new situations have arisen where the reindeer is held in captivity, whereas situations where reindeer have traditionally been held in captivity have more or less ceased. There may be more injuries and suffering than previously, but we have no documentation which can demonstrate this. Based on these changes alone, one cannot conclude that there are changes in the ethical ideas and standards in the treatment of reindeer whilst in captivity. There is no documentation which can be presented to demonstrate that the attitude and terms have changed.

The treatment of the actual domestic animals generally has probably not diverted much from what has been normal within cattle and animal keeping otherwise in Norway, even though the horizon such considerations have been based on can be different. There is probably no great need to consider the welfare of such animals in a particular way in a Lapp context.

The need is clearly greatest concerning the treatment of reindeer. One has fairly certainly a feeling in the reindeer operation environment that the development in different ways happens in conflict with the old standards. And new well-meant regulation can quickly appear as one-sided instructions from

outside without either a practical basis or value basis in the reindeer industry itself. Traditional reindeer operation knowledge should be more respected by the authorities. Dialogue between tradition and renewal and respect for regulations and systems are best promoted through mutuality.

Even though animal husbandry ways has changed in its forms, it is still the traditional standards within Lapp culture which still represents the foundation for the judgement of defendable or indefensible animal treatment. The framework for ethical animal handling can be found in the history of Lap culture, but there may be a need for more detailed and explicit regulations in some areas. If one shows respect for tradition and culture it should not be impossible to find good solutions."

4.1.4 General attitudes – development signs and current trends

Changing values

In a modern society one cannot expect agreement concerning all questions of values. The population has different cultural backgrounds and many experience new things from travel or the media. Value evaluations in an area such as animal welfare is not isolated but should be weighed up against other values and consideration, especially when they are used practically. It is therefore essential that the discussion concerning ethical questions takes place continually, and that there is a general acceptance of a certain foundation which society can build upon. 30 years have passed since the principles in the existing Animal Welfare Act were discussed in the Parliament (Storting). Procedures which have previously been found unproblematic may in time be viewed in a different light. The general wealth development has lead to interest in other values than material values. New knowledge influences and should influence moral attitudes. Scientific based knowledge concerning animals' senses and how animals react in various situations should for example make it possible to set ethical limits for the animal husbandry. Ethical weighting should generally be based on a factual foundation which is as extensive as possible. Otherwise we can end up giving more weight to conditions which in practice mean more to people's feelings than to the welfare of animals. On the other hand, the need to have to prove everything with scientific research may cause us to lose the ability to use empathy and common sense. If we are too occupied with details, valuable information concerning the total picture may be lost. It cannot be taken for granted that everything that can be measured means something, and it is not certain that what means most can be measured. A "precautionary" attitude is therefore significant also in this area. Even though there might exist a small doubt whether fish feel pain in a similar way to mammals, we should treat them as if they do.

Prominent trends in consumer attitudes

Production for a competitive market and the requirement for profit has led to industrial agriculture which many people react in a negative way to when they are made aware of the conditions. This does not apply only to conditions which are perceived as gruesome with respect to animal care and the treatment of domestic animals, but also aspects about food which may have a negative effect on personal health, such as residues of drugs and medicines, resistant micro organisms as well as consideration for the environment. This includes a general scepticism towards the modification of genes and "messing around with nature".

Consumer surveys are the nearest one comes to the general attitudes in the public opinion with regard to today's animal husbandry and food production. Consumers and their organisations have become an independent force and weight is given to their views. The public opinion has in several instances managed to generate stricter regulation of production animals, amongst others concerning the transport of animals in the EU and compulsory grazing for cows in Sweden. In Norway consumers as a group have been less explicit, but media coverage of Norwegian conditions has nevertheless contributed to awareness being sharpened over the last few years. The Norwegian public opinion is still to a large extent convinced that conditions in Norwegian animal husbandry are better than abroad. Norwegians also have a relatively greater confidence in the authorities and the directorates than that which is stated by consumers elsewhere in Europe. According to a survey carried out by Norsk Gallup Institutt in 2001 (Nature and Environment Barometer) 80% of those asked are very confident or quite confident that cattle in Norway are kept in an animal friendly way, and 85% when asked about sheep and goats. The equivalent figures for pigs are 68%, for hens 39%, and for fur animals 29%. A survey from Scan-Fact in 1999 regarding the significance of animal welfare in relation to six political issues which where then current (tax policy, environmental protection, culture, alcohol policy, the position of the church, and shop opening hours) showed that 57% thought that animal welfare was very significant, whereas 9% thought that animal welfare had no significance. Only tax policy and environmental protection were rated as more important than animal protection.

Opinion carried out a survey commissioned by the Animal Protection Alliance in 2002 concerning attitudes to the use of animals. A large majority, 88%, of those questioned, said they where positive to animals being used for food production, whilst 10% were negative. With regard to testing of cosmetics on animals 81% were negative and 11% positive, whereas with regard to the use of animals for medical research 70% were positive and 19% were negative. With regard to fur production 36% were positive and 56% negative. In a previous survey carried out Opinion (2000) 56% of those asked considered it wrong to keep fur animals in cages whilst 21% considered it to be right.

Women and the young are generally most concerned that animal husbandry is carried out in a defendable manner, but they are also most sceptical to that being the case at all. The same applies to people resident in urban areas.

Even though a large majority of the population are positive to the use of animals for food production, almost 40% of consumers, proportionately most women, say that they are sceptical about their own consumption of meat (SIFO 2000). 50% of these respondents state that they are actually doing something about it even though the statistics show that meat consumption as a whole is slightly increasing or stable. Changes in the choice of meat products could be an alternative to reduction. In addition there is a tendency for the difference in meat consumption increasing between various groups. The cause of the scepticism towards meat is split between considering ones own health and consideration for animal welfare. Despite the scepticism towards meat and meat production being widespread in the Norwegian population, vegetarians count only 1-2%. Understanding for the animals' life and rights clearly does not dissuade people from eating meat and 80% of the population

think that people have the right to take life to obtain food. Consumer behaviour may despite this change. A reduction and change in meat consumption has been clear in some other European countries in the last 10-15 years.

The majority of consumers state in interview that they are prepared to pay more for food in order that farm animals have a better life. This willingness does however reduce with increasing price differences. Experience shows however that in practise many chose the cheapest product. Norwegian consumers' firmly established confidence in Norwegian agriculture and the food which is presented for sale may be one of the reasons that animal welfare is not in focus when a choice is being made in front of the chilled counter. Another reason is that the labelling systems do not give information concerning production conditions. In Denmark, for example, the sale of eggs from caged hens was reduced by 40% during the 5 years after it was required to mark the cartons with production method. Organic products are by the majority of consumers associated with environmental considerations and to a lesser extent animal welfare, even though there are stricter requirements regarding animal care than in conventional production. There is amongst other things a requirement for outdoor airing pens for hens and daily exercise for milking cows in pens. In several countries animal friendly products have their own marking system; for example in England "Freedom Food" and "Kvalitet med omtanke (Quality with thoughtfulness)" in Denmark. The Animal Protection Organisation has worked with a similar system in Norway.

That there is disagreement between what consumers say and what they actually do is a well known phenomenon which economists have worked with for many years. The consumers' wishes are not always reflected in sales statistics. This can be down to several things such as a lack of relevant choices, consumers have to choose between many considerations at the point of purchase, and consumer place the responsibility for animal welfare on others. Attitude surveys, however, indicate a general agreement that a high standard of animal welfare shall be regarded a collective benefit for society and not suitable to be regulated by market forces.

4.2 Elements from the natural sciences' fundamental knowledge regarding animals

In our Christian humanistic culture it is traditional to operate with a distinct division between humans on the one side and all the animal species on the other side. When Darwin introduced his theory of evolution in the mid 1800s he broke away from the prevailing view of nature. Darwin claimed that there were grade differences and not absolute differences between animal species and between animals and people. This applied to morphological, physical and mental skills. Later research within biology has confirmed that Darwin's postulates to a large extent were correct.

4.2.1 Genetics

Molecular genetics has revealed that DNA is built in approximately the same way regardless whether it comes from bacteria, fish or people. This makes it possible to transfer genes between very different species and make them work inside their new host. Genetic similarities and differences have made it possible to set up probable family trees for evolution. On the basis of genetic studies one can suppose that the

development distinction between fish and other vertebrates took place 400 million years ago, which fits in quite well with fossil finds.

DNA in chimpanzees and humans has a similarity of 98%, pigs and humans approximately 90%. As a comparison two species which we consider to be very similar, the Indian elephant and the African elephant, 96% of the DNA is similar. There is nevertheless no doubt that even small differences in DNA can be the source of large differences in external form and function.

When different species have very similar genes, it is not surprising that many of the building bricks in the body, the proteins, are very similar. The pig's insulin is so similar to the human's that over many years it has been used for the treatment of diabetes until it was possible to produce human insulin with the help of genetically modified bacteria.

For species which separated at an early stage in the history of evolution, similar qualities may have come from various origins and organisation (convergent evolution). For example the ability to fly is not only held by birds but also by insects and the bat, which is a mammal. The fact that fish do not have brain bark does not necessarily mean that fish lack all the functions which are taken care of by the brain barken within mammals. The evolution may have created alternative solutions so that different structures can take care of the same tasks.

4.2.2 Neurophysiology and cognitive² attributes

Animals' feelings

Recent brain research has shown that the feelings, which one previously thought come into existence in the brain barken actually have their headquarters in the developmentally oldest part of the brain. Feelings such as hunger, fear, pain, satisfaction, joy and anger are therefore hardly just human qualities but qualities we have in common with animals. The brain barken, which is the part of the brain which has grown enormously in relative size from the first vertebrate animals to primates and the human, plays an important role in interpreting, modifying and subsequently suppressing feelings, but does not create them.

An important factor has been and is whether animals experience pain in the same way as humans, and the answer has been central in determining whether people have moral duties to animals. Pain is like other feelings subjective, and can therefore not be directly measured, neither in animals nor people. Not all species or individuals act in the same way in situations which must be assumed gives significant pain. Whilst a dog will often scream and struggle, a sheep will normally show very few external signs. One cannot conclude from this that dogs feel more pain than sheep. It is more likely that the level of external signs can be seen as evolutionary adjustments. A sheep which makes a lot of noise in a struggle will quickly gain the attention of predators.

The ability to feel pain and discomfort is important to protect the body from damage to the tissue and to hasten a healing process, for example an injured foot should not be

² Cognitive is a term in psychology describing the processes that form the basis for recognition, thinking and knowledge acquisition, and includes topics like the perception of the senses, awareness, memory, language and ability to reason and solve problems.

stressed. If the anatomical makeup of the nervous system, both receptors, nerve tracks and structures in the brain, the effect of pain relief medicine and not least the animal's ability to learn to avoid situations which have earlier been associated with pain were compared, it is reasonable to conclude that in any case all higher standing vertebrate animals feel pain. In fish all the criteria have not been investigated. The majority of researchers have today the view that fish probably feel pain, even though a certain amount of disagreement exists. For invertebrates the situation is significantly more uncertain, and there is a great lack of knowledge in the area. There are indications that amongst others octopus feels pain.

Researcher's opinion earlier was that babies did not feel pain. This was amongst others demonstrated by saying their nervous system was not yet fully developed. There was therefore carried out advanced surgery on babies without general anaesthesia right up to the 1980s. Today the physiologists' opinion is that the immature nervous system perhaps by contrast means that babies are more sensitive to pain.

Consciousness

Consciousness varies on a scale from awareness to reflective self consciousness. In humans the development of reflective self consciousness takes several years. Consciousness in animals is naturally enough difficult to test in a scientific way, but several tests and observations may indicate that high standing mammals and perhaps some bird species have self consciousness. It is reasonable to suggest that there in any case exists a significant grade difference between the species. Some researchers, such as Donald Griffin, do not exclude that even insects have a form for consciousness. He justifies this by saying that consciousness is an effective way of sorting perceptions of the senses for an animal with a simple nervous system.

A high level of consciousness has been referred to as a prerequisite for an adequate experience of pain. However, this view relies on the suggestion that feelings come from the brain bark and not the developmentally oldest part of the brain. Pain is now considered to be amongst the "simple" feelings which are not dependant upon complicated processes in the great brain.

Instinct and the ability to learn

Earlier it was a common understanding that animals were only steered by unchangeable action patterns which they where born with which where spontaneously released by given stimuli or influences. This was called instinct. Today, researchers have a different understanding of behaviour and the term instinct is used rarely. It is correct that animals show movement and reaction habits which they are born with and which are species specific. These are rarely static, but they are adapted to the actual situation the animal is in. The majority of animals have a well developed ability to learn from experience and they modify their behaviour under changing circumstances. The individuals within a species are often genetically capable of learning some tasks or situations particularly fast. This is true particularly for skills which are important for the ability to survive in the environment which the species has adapted too. People and rats easily associate nausea or vomit with food which has just been consumed. The result is a rejection of the food for short or long periods regardless of whether the cause was something else completely. This association ability is important in order for omnivorous species to learn how to distinguish between safe and dangerous food.

Knowledge, for example concerning where good grazing areas can be found is passed from a mother to her young. It is well known that for example moose use the same migration routes for generations. Sheep do the same. Some animals can learn new skills by observing others. After a titmouse in England learnt to peck a hole in the tin foil on the top of a bottle of milk which had been delivered to the door by the milkman and take the cream from the non-homogenised milk this behaviour spread quickly to other titmice throughout England. When behaviour and experience is collected and passed on from generation to generation within a population this can be called culture also amongst animals.

Animals' ability to think

The ability for abstract thinking and reasoning stems from the brain bark. Humans have by far the relatively largest brain bark regardless whether it is calculated by volume or surface area. But animals also have to some extent the ability to reason and to solve tasks. Both primates and certain species of bird are capable of making and using primitive tools. It is claimed that a flock of wolves plan their hunt and amongst other things place rested members of the flock along the expected hunting route. There is, however, limited research based knowledge in this area and the subject is dominated by anecdotal literature.

Language and communication

No species has a verbal language equivalent to that of the humans. It has been possible to teach chimpanzees and gorillas to use sign language in such a way as to show that they understand the meaning of the words and can share their feelings and wishes. Parrots can learn to understand sentences and use words correctly. Animals such as horses and dogs can easily learn the meaning of various commands in the same way as people can learn the meaning of various sound signals from the animals. The contact between people and animals will primarily take place as silent communication. There is no doubt many animal species, particularly flock animals, have a well developed communication system. The bees dance, which informs other bees in the hive about the direction and distance to a flower bed shows that advanced communication is not reserved for vertebrate animals.

Ethology

Ethology, the systematic study of the animals' behaviour, is a relatively new and multi subject discipline within the natural sciences. The animals' behaviour can be explained from various viewpoints. A type of behaviour can for example be explained from the evolutionary perspective or functional criteria, but also from mechanisms in the animal which cause the behaviour, such as physiological changes or learning mechanisms. Genetics, cognitive psychology, physiology, ecology, and socio-biology can all be used to understand and explain behaviour. Modern ethnology integrates these academic disciplines into complete behaviour biology.

The humanisation of animals

Knowledge concerning the genetic relationships and the many similarities between humans and animals can lead to us feeling association with animals and treat them with a greater compassion and care. Acceptance of such a similarity is however not a prerequisite for this. Animals can also be respected and admired because they are different from people and have skills which we lack, for example the leopard's speed,

the dog's sense of smell, or a birds sense of direction. The most important thing is the will and the ability to respect animals as they are and prioritise their particular species' specific needs. If we instead as people uncritically ascribe to animals our own needs and desires, that which is called anthropomorphism (humanisation), we may inflict injustice on animals.

4.3 Animal welfare

4.3.1 Animal Welfare – understanding the term

The Norwegian term for animal welfare has been taken into the Norwegian language from the English term "animal welfare" which concerns how good the animal's conditions are and how well the animal progresses through life. The term animal welfare is now to a large extent used instead of other overlapping terms such as animal protection and animal care and will be used in this report. Animal protection, which is the oldest and therefore the most established term, covers what is traditionally regarded as protecting animals from mistreatment, abuse and suffering. The earliest animal protection legislation was exclusively focused upon this. In 1974, when the current Animal Protection Law was approved, a requirement concerning consideration for the animals' instincts and natural needs was included in the scope. Recent regulations focus to an increasing extent upon factors which positively contribute to animals' wellbeing instead of just aiming to reduce suffering. The term animal care was primarily introduced through agricultural channels in order to increase awareness amongst the individual stakeholder regarding the importance of good treatment of living animals throughout the chain from barn to slaughter. Whilst animal protection and animal care focus upon people in contact with animals, animal welfare focuses upon the individual animal and its situation. Animal welfare has thus much of the same content as the everyday word well-being. The animal's welfare is dependant on the coordination of several factors such as the physical environment, care factors and care, as well as qualities in the animal as a species, race, age, sex and earlier experience. There are, however, several definitions and understandings of the content of the term animal welfare.

The Brambell commission

The English Brambell Commission in 1965 presented an extensive investigation of the term animal welfare and summed up the ideal welfare as "the five freedoms" for domestic animals:

- Freedom from hunger, thirst and malnutrition.
- Freedom from abnormal cold and heat.
- Freedom from fear and stress.
- Freedom from injury and sickness.
- Freedom to exercise normal behaviour.

The commission declared that the first two points are to a great extent complied with in modern keeping, and that there is a long way to go before we satisfy the animals behavioural needs.

Objective measurement of animal welfare

In science one has attempted to define the term animal welfare in such a way as to enable the objective measurement of the level of welfare using scientific methods. The most commonly cited definition was developed by the world's first professor in animal welfare, the English Donald M. Broom. He states that "The welfare of an individual is its state as regards its attempts to cope with its environment". Animal welfare is thus described as an individual animal's status with regard to how it masters the environment in which it lives. The term mastering is central in the understanding of welfare. The starting point is that most animals are adaptable and flexible within certain limits. The environment does not need to be a copy of the animal's preferred habitat in the wild but it must be adapted in such a way as to give the animal the opportunity to cater for its physiological and behavioural needs, and subsequently allow for physiological and psychological balance. An example which can demonstrate this would be a young horse being released into a pen with a strange adult horse. The young horse will probably through its body language immediately show submissiveness. Should this not be sufficient to quell aggression from the other horse then the young horse may perhaps have to keep a good distance away in order to avoid attack. The design of the enclosure and the care routine's are of vital importance for the young horse's opportunity for mastering. Is the space in the enclosure adequate so that the young horse can move away in time and have the opportunity to rest at a safe distance? Is feeding done in such a way that the adult dominant horse controls the feed and the young horse does not dare getting close to the crib and perhaps must be satisfied with bad leftovers? Whether the young horse's attempts to master the situation succeeds or fails, but also the other consequences of its exertion, gives a picture of the welfare. It can for example happen that the young horse is bitten or kicked, is malnourished or lives in constant fear, but also that the adult horse accepts the young horse and that they develop strong social ties.

The existence of injury and sickness, mortality, growth, reproductive success, behaviour, together with physiological parameters for example stress hormones, are often used as welfare indicators. An animal which uses a lot of resources to master its environment has a worse standard of welfare than one which uses few, even if both have been successful in their attempts.

Ethics and animal welfare

Broom's definition makes it possible in principle to measure animal welfare in a scientific way. Animal welfare is a quantity which can vary on a scale from very good to very bad. When researchers have described the level of animal welfare with objective methods, Broom is of the view that it is society's task to decide where on the scale the distinction shall be set between acceptably good and unacceptably bad animal welfare. This, according to Broom, is a moral/ethical dilemma.

Other researchers are of the view that the term welfare in itself concerns more than biology and that the term is firmly attached to an underlying perception of value. It is their view therefore that ethical considerations and dilemmas must be considered from the start. The natural sciences do not state for example how the different welfare indicators should be weighted. It is not rare that two measurements for welfare point in different directions. How much should for example the presence of behavioural stereotypes (obsessive movements) count in relation to good physical health? Is it most important that the animal gets to live a normal life in relation to the species' natural biology or is it better that the animal is held in a controlled environment so

that sickness and injury can be discovered as quickly as possible? Simply put: What content does a good animal life have?

Welfare based on animals' feelings

Some leading welfare researchers, such as Ian Duncan and Marian Dawkins, define animal welfare from the animal's own experienced, emotional condition. As long as the animal's positive experience in the form of contentment, satisfaction and play is dominant and make up for feelings of fear and frustration, according to these researchers it bears no significance to the animal's welfare if for example it can be measured in a laboratory that its immune system is weakened. A central question in the debate about welfare will therefore be whether animals feel frustration or loss if they are not able to behave in the same way as they would have in more natural surroundings.

Summary animal welfare

The term animal welfare has, as stated above, not necessarily the same content when it is applied by different people. This can lead to misunderstandings. However, this is a real disagreement which one will have to accept to live with in the same way as the content of equivalent terms concerning people is a subject of discussion.

This report is based on a broad definition of the term welfare, and objective criteria which give information about the animal's emotional condition and its ability to master the environment are taken into account to the extent that such data exist.

4.3.2 Goals for animal welfare – welfare indicators

In principle all relevant information should be included in an evaluation of an animal's welfare. The more information the better the evaluation will be. In practice researchers and supervisory personnel are often obliged to select and measure just a few. It is then important that he/she selects the most important. Unfortunately it is often impossible to measure the factors which appear important, for example feelings like pain, hunger or fear. Instead one must be satisfied with indicators, signs, which can be assumed to have a connection with the feelings which need to be evaluated, but which are not possible to measure directly. An animal in a lot of pain will perhaps alter its behaviour, it will perhaps moan or not stand on a painful foot, heart frequency can increase and the level of stress hormones in the blood can be higher. The animal's appearance, such as the way it holds its body, look, appearance of the fur or feathers as well as condition also give indications of its welfare. Within welfare research various measurements, or parameters, are used which may be split into three main groups: Health, physiological measurements and behaviour. In addition production results have to an extent been used as a measurement of welfare.

Physical health

Sickness is a natural part of a normal life and it hardly realistic to completely avoid sickness. If a sick animal is given appropriate care and treatment then its welfare is not necessarily bad. Many of out domestic animals are however exposed to an unnecessary high risk of sickness and injury for example through a badly designed animal environment, incorrect feeding and imprudent breeding. Information regarding the condition of health is therefore central in a welfare evaluation.

The simplest health parameter is a lack of clinical sickness or visible sign of sickness. It is registered if the animal is fit or sick or dead. Sickness can again be graded by seriousness. In a welfare evaluation, sickness and injury which have associated pain or great discomfort will count for more than a condition which to a lesser extent affects the animal. It can occur that animals which are registered as fit in reality are very close to the limit of being defined as sick - it could have a sub-clinical sickness, a sickness which has not broken out yet. It can also be a condition which is difficult to diagnose without the help of a laboratory test. For example the animal could have worms without the owner having seen worms in the animal's excrement. It can be informative to measure health indicators which may include all medium values and not just fit or sick. An example of this is the counting of cells in milk from cows. In a healthy udder the cell count in the milk is normally low, but high during the incidence of udder infection. Cell count is therefore used as an indicator of udder health, and in some countries it is the cell count and not the incidences of infection which is used as a selection criterion in breeding. Another health indicator is the function of the immune system. By examining a blood sample from the animal it is possible to test how well the immune cells' function. Long term stress will for example weaken the immune system and make the animal more receptive to sickness. Bad physical health will often have consequences for fertility, growth and milking performance.

Physiology

Various physiological measurements are extensively used as welfare indicators. High levels of the so called stress hormones in the blood are a sign of pressure on the organism. Adrenalin and noradrenalin increase quite immediately in connection with an acute stress situation but also normalises quite quickly. Glukokortikoider, (kortisol, kortikosteron) have a slightly slower and more lasting response and are the most used stress hormones in welfare research. It is, however, important to be aware of the fact that the level of hormones shows a variation over 24 hours and the method of sampling can give effect. In addition the level can rise during physical activity and during positive experiences, for example during mating. During lasting stress the hormone levels are often normalised after a period and are therefore less suitable as a sign of strain. Chronic stress can, as mentioned, lead to a weakening of the immune system and can also result in certain changes in the organs, such as ulcers. Research shows however that stress in a mother animal during pregnancy can influence her offspring's behaviour.

Measurement of the heart frequency is occasionally used as a welfare indicator. Heart frequency increases with fear and pain. However, heart frequency increases during many other connections, primarily during physical activity and in situations which are an indication of positive expectation or excitement. In some animals, however, the heart frequency is reduced during periods of fear. This applies primarily to species which normally react to danger by lying still, cower, instead of running away. The measurement of body temperature is used as a welfare parameter in fur animals amongst others. The body temperatures increase during situations of stress.

Stress is a natural ingredient in a normal life and the function of the stress reaction is to prepare the body to perform better. Stress becomes negative when the animal does not manage to master the situation and the strain becomes continual. Conditions which often lead to such negative reactions are a lack of transparency for example constantly changing routines and a breach of expectation such as a feeding period

being cut short. If the animal is prevented from doing something which can give it a feeling of control over the situation, for example to get away from an aggressive pen mate, the stress reaction is enhanced.

Behaviour

Behaviour says a lot about an animal's condition. Therefore, to interpret the animal's behaviour is something which all who handle animals must learn. A change in behaviour where the animal appears uninterested in its surroundings, loses its appetite or goes away from its flock is often an early indication of sickness. Behaviour is used as an independent and very important welfare indicator. Through behavioural biology or ethnology a lot of knowledge has been gained about the various species' normal behavioural patterns. Even though many of our species have been domesticated for thousands of years, in which time a selection process has been carried out selecting adaptability and qualities which people have found useful, the basic behaviour is surprisingly only slightly influenced. In addition to studying domestic animals' wild ancestors, ethnologists have mapped domestic animals' behaviour and use of time in natural or semi-natural environments, including several barn solutions and equipment systems. Through controlled experiments it can be investigated how important the satisfaction of various behavioural needs seem to be to the animals. By allowing the animal to choose between two benefits or to work for access to a resource, researchers found out a lot about the animals' own prioritisation.

Knowledge about the species' normal behaviour pattern is necessary as a basis for comparison when one studies behaviour in domestic animals in production systems. If for example one cannot observe happy energetic behaviour such as play in young animals this is information which is useful to include in a welfare review. Not only the presence of normal behaviour but also the displays of distorted behaviour are central parameters in a welfare review.

The majority of our domesticated animals are adaptable and can be very happy under conditions which differ very much from what is regarded as natural for the species. Also many wild living species show variation and flexibility concerning choice of habitat, nutrition and social organisation. The ability to adapt is itself an important quality for a species' survival in the long term. In an evolutionary perspective an animal's behaviour can be understood from a functional significance. It is, however, not certain that behavioural needs, the animal's motivation for a certain behaviour, disappears when the function is completed. It can be the carrying out of the behaviour and not the true purpose of the behaviour which is of meaning for the animal. The cat continues to hunt even though it is full. The desire to hunt is therefore not only motivated by the desire for food. Some behavioural patterns seem to be so programmed that the animals are frustrated if they are prevented from carrying out the behaviour.

A flawed environment, boredom and frustration can result in many ways of abnormal behaviour. Now and again one sees that an animal is apathetic and hardly reacts to things happening in its environment. It is more frequent that animals develop obsessive movements, stereotypical behaviour, which one does not observe in animals which live freely. Caged budgies that jump restlessly back and forth on a stick, horses which rock form side to side, or cows that roll their tongue are all examples of stereotypes. There are speculations that stereotype behaviour might help the animal

cope with a flawed environment. For example it was found that the frequency of ulcers in fatted calves was lower in calves that developed stereotypical rolling of the tongue. One theory is that the behaviour releases endorphins, morphine like substances in the brain, which cause the animal to "drug" itself. Even tough the environment is later improved, the stereotypical behaviour often continues. Tail biting amongst pigs and feather hacking and cannibalism amongst chickens, which is not shown amongst animals in the wild, can have major welfare consequences for the individuals which are exposed to the damaging behaviour. Abnormal behaviour also covers very natural behaviour which is displayed under the wrong circumstances, such as the need to suck when calves begin to suck urine. Some animal can react by being abnormally frightening or show excessive aggression. Aggressive behaviour can be normal under many circumstances but is generally an unwanted behaviour amongst domestic animals.

Regarding how animals react to an inadequate environment, there are differences linked to species as well as individual differences.

The significance of the care factor – the relationship between animal and human

The relationship between animal and owner or keeper is of major significance for the welfare. A caring, positive human contact can to a certain extent make up for inadequacies in the physical environment and partly replace the need for social contact with individuals of the same species. Unfriendly or brutal treatment results in timid animals. The relationship between animals and people can be described scientifically with the help of ethnological methods. Through several investigations, both amongst pigs and cattle, it has been shown that the care factor can influence the production. The strongest influence is the relationship between fear of the keeper and the reduction in performance, but there are also examples of friendly treatment resulting in increased production. It has been found amongst others things better pregnancy results amongst young sows through positive contact with a keeper and worse pregnancy results amongst young sows which had had negative experiences with their keeper, in comparison to animals with "neutral" treatment. In another investigation it was shown that there was a 15% increase in milk production in herds where the keeper talked in a friendly way to the cows and patted them during milking compared with herds without such positive contact. In the fur farming industry a scheme has been introduced whereby treats are given to the animals to improve their relationship with people and reduce the level of fear.

Production

High production was earlier assumed to be a good indicator of animals' well-being. That a cow produced a lot of milk or that a silver fox's fur was shiny, was taken as meaning that the animal's welfare was good. Researchers have, however, begun to be more careful in reaching such conclusions. There is no doubt that limited or delayed growth, reduced performance and not least poor reproduction can be sure signs of reduced welfare. Conditions such as malnutrition, physical sickness and lasting stress can clearly affect production ability and fertility. As mentioned, there several investigations exist which prove a relationship between the behaviour of the keeper towards the animals and the animal's production. It would, however, be too easy to turn the conclusion and claim that high production means that the animals have a good life. This is, amongst other things, related to the fact that domestic animals

through a long period have been bred with a view to obtaining production abilities, and that qualities that have been the objects of strict selection are not so sensitive to variations in the welfare level. Therefore, in many books concerning animal welfare, production level is not included amongst the welfare parameters.

Chapter 9

Goals, strategies and actions.

In this chapter follows a presentation of first an ethical platform and the overall goal which the government considers should be the basis on which the future work with animal welfare in Norway should be based. It further describes five strategies by which to achieve the proposed goals. To conclude the Government presents its goals and concrete proposals for actions which to some extent apply to several species and to some extent are special for specific species.

Summary

It is proposed to create an ethical platform which shall be leading for the views and care of animals which we have in our society. This platform comprises of the following:

- Animals have their own value. The handling of animals shall take place with respect for the animal type. This involves making extensive consideration for animals' natural needs and actively preventing sickness, injury and pain.
- Persons who have animals in their care shall have knowledge of behavioural needs and needs regarding nutrition, social and physical environments.
 Persons who have animals in their care have a responsibility to ensure the animals' basic needs and that they receive the necessary treatment in the event of sickness or injury.
- Animals shall be kept in environments which give a good quality of life.
- Healthy animals physical and physiological shall be a prerequisite in all types of breeding.
- Before new technology is taken into use it must be probable that it will not lead to reduced animal welfare. New methods of production must affect the animals as little as possible.

Healthy animals in good environments – is presented as the main goal in Norwegian animal care.

On the basis of the main goal the following long term goals for the work with the welfare of the individual animal species have been defined:

- The creation of the environment shall satisfy the animals' behavioural needs.
- Animals shall not be subjected to unnecessary pressures.

In the work to reach the set goals, the focus will be on actions based upon 5 different strategies.

- Competent owners documented competence for people who keep animals commercially – attitude forming work amongst owners of family and hobby animals.
- Knowledge development and knowledge sharing strengthening of national competence environments within welfare of land based animals and aquatic animals official support to the academic area animal welfare.
- Appropriate regulation and competent enforcement.

- Freedom of information and consumer communication.
- Influence on international frameworks for animal welfare.

For cases which concern several species the following goals are proposed:

- Review of different breeding programs to establish the consequences for the animals' health and welfare.
- Requirement to install a fire alarm system in larger barns within 5 years.
- Review of the regulations which regulate the transport of animals, in particular review preparation to transport, transport time, and opportunity to use stopping places.
- Review of the regulations which regulate the handling of animals for slaughter with a view to strengthening the consideration for animal welfare, as well as ensuring a national emergency slaughter system.

For the specific animal species the following proposals are proposed amongst others:

Farmed aquatic animals

Develop good welfare indicators for farmed fish.

Improve pain relief methods at the point of slaughter.

Strengthened consideration for animal welfare through a review of existing standards for the regulation of production.

Cattle

Free range for all cattle within 20 years and ban against building of barns with pens from 2004.

All cattle shall have access to a place to lie with a soft base from 2005.

All cattle with the exception of un-castrated ox over 6 months shall within 10 years be outdoors in the summer period.

Pigs

Free range for all pigs including sows in connection with farrowing within 10 years.

Sheep and goats

Reduced loss to wild predators through use of political resources which can increase to a large extent the physical separation between wild predators and grazing animals. Regulation of the keeping of sheep and goats.

Tame reindeer

Framework conditions for reindeer shall ensure agreement between the number of animals and grazing resources and adequate areas for traditional herding.

Reduced loss through grazing crises and reduced loss to wild predators shall be ensured through a review of existing tools and increased competence in crisis feeding.

Poultry

A principle goal of free range for laying hens.

A review of the regulations for slaughter chickens and turkeys with a view to reducing the density of the populations compared to the level today.

Fur production animals

❖ Strengthen welfare for mink and fox through a review of existing regulations with a focus on systems which better cover behavioural needs. New requirements shall be implemented within 10 years.

Dog and cat

The organisations are requested to develop guidelines for care.

Ensure a better control of the cat population through the introduction of an official requirement for ID marking. The control of the wild cat population must be defendable from a welfare perspective. Castration/sterilisation and the release of cats without owners depend on the organisations and individuals taking responsibility for the feeding of these animals.

Other family/hobby animals, circus animals and other exhibition of animals The general ban on display is withdrawn. Keeping of animals in zoos and other display of animals will be regulated.

A list of exotic animals which are permitted as family (domestic) animals will be developed.

A list of animals which are permitted to be displayed at circuses will be developed.

Animals in research and education

The establishment of a national platform (competence environment) for alternatives to animal testing.

Wild animals

A better coordination of the Animal welfare act and the wild animal law.

A requirement in the Animal welfare act for the approving of hunting methods and equipment.

Strict limitations on the use of catch and release as a method of fishing.

A total ban on the use of barbed wire as a fencing material in animal enclosures.

9.1 Future development

In chapter 5.8 NILF have proposed 3 different scenarios for the future development of animal farming.

Trade and globalisation is increasing. This influences consumer habits and increases interest in how food is produced. The government is of the view that there is a need to increase the consumer orientation of food production and to see the whole chain from earth/fjord to consumer in the same context. When the food related considerations to a greater extent is integrated in agricultural policy, an ethical animal care where focus is placed upon the animals' welfare, will be an important part of a wider quality definition.

Production will probably continue to increase and this will lead to fewer animals being needed. The total number of animal farms will go down by a down scaling of the small farms. The producers will have to comply with consumer demand for quality, good products produced in an animal and environmentally friendly way in order to compete in an increasingly international market.

The Government wants a continued focus on organic production. This will give consumers greater choice and in addition will give greater variations as to how animals are kept. This gives special challenges concerning requirements for the care of animals where it is necessary to allow for both intensive and extensive farming

practices.

The problems connected to domestic animals and tame reindeer in wild grazing and loss due to protected wild predators will continue to be a challenge in the future. The goal is to find a solution which can both protect the interests of industry and meet the demand for sustainable wild predator populations.

Norway's geographic location and nature given conditions will give the fish farming industry an opportunity for continued growth both for production volume and new species.

The Government believes that there will be a continued increasing interest to keep sports, family and hobby animals. Increased travelling and a more liberal attitude to family animal species in our neighbouring countries will also increase the pressure to keep animals which until now have not been allowed to keep in our country.

9.2 Ethical Platform

The Government want to turn the spotlight on the ethical questions that the relationship between people and animals raise, and it is the view of the Government that there is a need to develop an ethical platform which gives fundamental guidance for our attitude to care of animals. By focusing upon this the Government wishes to stimulate an important social debate where various groups of animal owners, interest organisations and not least interested individuals on a general basis discuss the value based foundation for our relationship with animals. It is the Government's goal that the proposed ethical platform shall function in a cohesive way and reflect the forward thinking in our culture whilst at the same time giving guidelines for the future of animal care. The ethical platform will therefore have influence on the defined goals for animal welfare and the regulation and enforcement.

The following shall be guiding factors:

Animals have their own value. The handling of animals shall take place with respect for the animal type. This involves making extensive consideration for animals' natural needs and actively preventing sickness, injury and pain.

Persons who have animals in their care shall have knowledge of behavioural needs and nutritional needs, social and physical environments. Persons who have animals in their care have a responsibility to ensure that the animals' basic needs are met and that they receive the necessary treatment in the event of sickness or injury.

Animals shall be kept in environments which give a good quality of life.

Healthy animals – physical and physiological – shall be a prerequisite in all types of breeding.

Before new technology is taken into use it must be probable that it will not lead to reduction of animal welfare. New methods of production must have as little negative impact on the animals as possible.

9.3 Main goal

Norwegian animal care and other intervention and regulation which affect animals shall occur within a framework which is ethical and academically acceptable. Health is an important aspect of the term welfare and it is natural that this to a greater degree than previously be focused upon in both goals and actions.

It is the owners of animals' responsibility that animals are not exposed to unnecessary high risk of sickness and that other conditions which can ensure welfare are taken care of. The whole of society has the same ethical responsibility to the extent their treatment or actions directly affect animals' life development.

The Government has therefore developed the following main goals for the future of Norwegian animal care:

Healthy animals in good environments

The phrase "healthy animals" signals that the goal covers both the somatic and psychological health in animals. The relationship between psychological influences and bodily reactions is well documented, both from experimental studies and observations from animal care in practise. The creation of the environment, which of course covers several elements, including care, will thus be decisive for whether the animals are in good health both mentally and physically, which again are decisive for animal welfare. The goal "good environments" shall thus contribute to healthy animals and thereby good welfare.

On the basis of this approach the Government has developed the following long term goals for the work with animal welfare and animal protection as guidance for all animal care:

- The creation of the environment shall satisfy the animals' behavioural needs.
- Animals shall not be subjected to unnecessary pressures.

In this way a new basis is laid down for a further development of Norwegian animal farming, aquaculture and other keeping of animals, in that the animals are ensured living conditions which enable them to master environmental and other challenges.

Animal tragedies which are caused by bas care or mistreatment cause expressed and totally unacceptable pressures for the animals concerned. The work to prevent such animal tragedies will therefore receive increased attention. The causes are complex and often involving deep personal crises for the animal owners. It is therefore difficult to deal with the causes through individual actions, but action in a broad area is required. The proposed strategies, goals and actions shall give the authorities better tools for this work.

9.4 Strategies

In addition to the long term goals for different animals the Government will concentrate activities to achieve the main goal trough five different strategies; competent animal owners, knowledge development and knowledge sharing, appropriate legislation and competent enforcement, freedom of information and consumer information as well as influence of international frameworks for animal welfare. The five strategies reflect that competence, openness and active international work will be important key words in the work for improved animal welfare and to avoid animal tragedies in the coming years.

9.4.1 Competent animal owners

9.4.1.1 Summary and evaluation

The Ministry of Agriculture will underline that competence amongst animal owners in Norway is generally high. This is due especially to:

- Active industry and interest organisations who work with knowledge development and information concerning animal welfare in cooperation with the appropriate authorities and academic environments.
- A generally high level of education in society.
- A strong tradition in our culture to care for animals.

The following conditions indicate an increased focus on knowledge development for animal owners:

- Today, with few exceptions, there are no requirements for competence for persons who work with animals, neither in a professional context nor as a hobby. At the same time modern animal care demands an increased requirement for knowledge about the animals' basic needs and it has been registered that pets are more frequently held in environments which lack experience with animals.
- A competence increase amongst animal owners and persons who work with animals will reduce the danger of mistreatment which is caused by lack of knowledge, and probably result in animal welfare being given more weight.

9.4.1.2 Actions

Documented competence of persons who keep animals for commercial reasons
In the ongoing continual revision of The Council of Europe's conventions and
recommendations, the member countries are consistently recommended to require that
all persons who keep animals to have a documented competence. The Ministry of
Agriculture will during the revision of the Animal Protection Act consider the
possibility to include a requirement for such a competence amongst animal owners.
Several domestic animal organisations have as part of their respective action plans
concrete plans to require such training.

It is particularly important that all persons that have responsibility for animals in a commercial context have extensive knowledge about those animals and their needs as well as how various physical and social environmental factors, including the keeper, influence the animals' welfare. The authorities wish in cooperation with the individual commercial and branch organisations to develop a training structure which can give the necessary attitudes, knowledge and skills amongst those persons completing the training. In addition to providing an academic knowledge, ethics and animal welfare will be important elements in the training. On completion of the training a certificate will be given. The academic content will be approved by the Animal Health Authority. The Ministry of Agriculture requests that the respective organisations introduce such a training structure as soon as possible and at the latest by 31 December 2008. The Ministry of Agriculture will also evaluate actions which can stimulate organisations and individuals to introduce and complete the training.

Five years after the introduction of the individual training structures there will be a review of the training and its effects carried out through a co-operation by the organisations and the Animal Health Authority. The result of the evaluation will determine whether it is necessary to set public requirements and control that the minimum requirements are satisfied, or which sanctions can be introduced if the

training is not completed.

Attitude changing work amongst owners of family and hobby animals

The total number of species held as family and hobby animals is great and the individual species' needs and environmental requirements etc. vary. The Ministry of Agriculture will request organisations which represent members who work with breeding or keeping of family and hobby animals to tailor information and competence building amongst owners of the respective animal species. Information material which gives factual knowledge concerning the animals' behaviour and basic needs should be produced. The information should also focus on ethics, animal welfare and the owner's responsibility should be made clear.

9.4.2 Knowledge development and knowledge sharing

9.4.2.1 Summary and evaluation

The science based knowledge concerning animal species' behaviour and basic needs is increasing constantly. Most of this research naturally takes place abroad. It is therefore important that our national competence centres prioritise international cooperation in order to participate in the knowledge development. The national research contributions concerning ethology and animal welfare have been given a higher prioritisation lately, but these competence environments are small and vulnerable.

Science based knowledge concerning ethology and animal welfare shall be fundamental for both development of legislation and management. There is a need for strengthened cooperation and a clear understanding of roles between the academic environment and the management in this area.

The Council for animal ethics has contributed to debate and increased awareness concerning ethical questions related to animals and husbandry. This area will receive an increased focus in the years to come.

9.4.2.2 Actions

A strengthening of the national competence centres for welfare of land based animals and aquatic animals

The Ministry of Agriculture will strengthen the national competence by stimulating active research within the existing academic environments. Prioritised areas of research will be for example: basic studies concerning behaviour and welfare of production animals and family animals, behaviour and welfare of farmed fish, pain relief methods before the slaughter of land based animals and farmed fish. Norway has, as a result of its special competence within farming of salmon, a particular responsibility for the strengthening of international competence concerning the welfare of these species in farming.

In Norway there has been an increased focus on the areas ethology and animal welfare as well as ethical reviews within professional studies and in research environments. This is positive and this development should continue.

Official support of animal welfare

There is also a need for the managing authority to gain academic advice concerning different problems connected with animal care and animal welfare within the management of animal welfare. The welfare of all animals will be the responsibility of the new Food safety authority, and The Ministry of Agriculture plan to make available funds in this area in connection with the establishment of the new authority. This will be further considered in connection with the work to establish the Food safety authority.

Council for animal ethics

The Council for animal ethics was established in 1993 under the name The Ministry of Agriculture's ethics group. The Council for animal ethics is an advisory body to the Ministry in cases which concern ethics and animal welfare. The council has through several statements focused on areas where problems exist within our keeping of animals both with regard to production animals and family animals, and has been an important contributor in the public debate.

The Ministry of Agriculture's opinion is that there is still a need for an independent group with a dual role; first as an advisor and support for the managing agency concerning questions connected to ethics and acceptable animal welfare. Secondly, it is desirable that the debate concerning values and ethical standards for animal care and the treatment of animals is ongoing. It has often been shown that a situation which once was viewed as unproblematic, after a period of time is reviewed in another way. This can be due to gaining more knowledge between the evaluations or the general view has changed. An animal ethics council will function as a catalyst for a continual debate in society concerning these questions.

New scientific committee

As part of the establishment of the new Food safety authority it has been proposed to establish a new scientific committee. The scientific committee will serve the food management agency's need for science based risk assessments with regard to conditions which have a direct or indirect effect on food safety. In accordance with the mandate the scientific committee shall also carry out scientific assessments in the areas of animal health, animal welfare and plant health, and include relevant environmental considerations. It has been proposed that specialised groups shall be established under the main committee. One of the proposed groups will have animal health and animal welfare as its responsibilities. The Ministry of Agriculture is of the view that the proposed scientific committee will be a good tool to strengthen the academic and scientific foundation for an improved animal welfare.

9.4.3 Appropriate legislation and competent enforcement

9.4.3.1 Summary and evaluation

- The requirements in the Animal Protection act shall be based on knowledge and ethical evaluations.
- Enforcement of regulations concerning care of animals shall take place on a professional and sound administrative basis.

9.4.3.2 Actions

Review of the Animal Protection Act

- The Animal Protection Act must be reviewed with a view to having a more future orientated and appropriate management of animal welfare.
- The work for better animal welfare must have a solid foundation within all levels of the new Food Safety Authority.
- An academic support for the management agency for animal protection and animal welfare will be built.
- Adequate resources must be made available for research concerning animal welfare and ethology which should also cover the aquaculture industry.

The committee which had been given the responsibility to present a proposal for a new animal protection act presented its views to The Ministry of Agriculture 26 August 1968. The Ministry of Agriculture presented its proposition to the Parliament (Storting) 1 February 1974 (Ot. Prp. Nr 27 for 1973-74). The Act has been changed a number of times, but has not been thoroughly reviewed and revised. The Ministry of Agriculture will, based on this report, carry out a complete review of the Animal Protection Act which among other things will aim to:

- Ensure that the Animal Protection Act to a larger extent will give the main framework and standards for good animal welfare, whilst the more operative requirements and regulation will be found in Regulations.
- A clarification of animals' status and rights in the Law.
- Make available the necessary legal basis to more effectively prevent tragedies caused by lack of care for the animals. This applies to the requirement for competence amongst animal owners and a duty to inform the authorities in each known case where care is not good enough. Professionals who have a legally required duty of confidence such as persons within health and social services should also have a duty to inform the authorities if they by virtue of their function become aware of situations of neglect or fear of neglect of animals.
- Develop a legal basis for a professional animal protection authority.
- Define the scope and applicability of the act in connection with different species, and carry out a distinction between this act and other acts in order to define the scope. The Ministry of Agriculture does not plan to extend the scope of the Animal Protection Act with regards to species.

The reindeer industry has commented that the Animal Protection Act's requirements do not take enough into account the special nature of the industry and reindeer competence that exists in the Lapp reindeer industry. This situation will be considered in connection with the review of the Animal Protection Act.

Making enforcement of the Animal Protection Law stronger and more effective. The model for today's management of the Animal Protection Act was established by an amendment of the Animal Protection Act in 1995. In this amendment the communal animal protection committees were replaced with state committees, normally one committee per veterinary district. The animal protection committees were given authority by law and made independent of instruction from the management hierarchy. The committees were given decision competence and the right to give orders. The Norwegian Animal Health Authority, the district veterinarians, was given responsibility for the secretariat. The districts veterinarians

are otherwise given an independent enforcement and decision competence in many areas which has been delegated by regulation. The amendment of the Act of 1995 replaced an earlier model whereby order authority and competence lay with the police.

The experiences of the animal protection committees have mainly been positive but some conditions have encouraged The Ministry of Agriculture to propose a change to the management model:

- Overlapping competence between the animal protection committees and the district veterinarians is in certain circumstances unconstructive and should be avoided.
- The animal protection committee shall exercise a lay man's judgement, and a management authority represents a great need for enforcement and management competence.
- A continuingly larger part of the management of this area is built upon science based knowledge which reduces the need for the use of discretion. A similar effect is observed through international commitments which give a greater degree of regulation.
- Several areas of animal care are particularly specialised and high and special competence to carry out professional enforcement of animal welfare in such areas is requires.

It is therefore proposed that a new model for the local management of the Animal Protection act where enforcement and order authority is given to the Ministry of Agriculture for further delegation to the new Food safety authority. The current committees will be reduced down to one animal protection committee in each of the local management areas which are planned in the new authority. The new committees will have an advisory function in the enforcement model. The model will give a professional enforcement as well as management whilst at the same time providing a lay man's perspective by involving the animal protection committees in those cases where it is required and necessary. The model will save resources both from an economical and personnel perspective in comparison to today's model.

It is intended that the new management model will be in place by the time the new Food safety authority is operative. A separate proposal to the parliament concerning necessary changes to the current Animal Protection Act will be forwarded to the Parliament (Storting) in case the announced revision of the Animal Protection Act cannot be carried out before.

9.4.4 Freedom of information and consumer communication

9.4.4.1 Summary and evaluation

The population's engagement for animal welfare and knowledge about production conditions are dependent on openness and communication between industry and society. Openness and communication are also prerequisites for the consumers' confidence in the information which is given regarding Norwegian animal care both from industry and the authorities.

Standards for animal welfare which exceed a minimum level will often lead to extra costs and could result in higher product prices. Shopping trends and the willingness of

consumers to pay higher prices for products from animals with a documented history of good care will dictate whether in the long term it is possible to attain high standards in certain productions or indeed for the whole industry in Norway compared with international animal care. In this way consumer attitudes and relationships between consumers and industry will play a central role for the future level of ambition for the animal welfare area.

In this connection the possible advantages for Norway are presented:

- Consumer surveys indicate a wide spread confidence in that animal welfare in most production areas is achieved.
- Confidence in enforcement and government agencies also seems to be extensive.
- Industry is well organised, practises a great degree of openness and many organisations have developed their own action plans for animal welfare.

However, the following represent important short term challenges:

- Urbanisation with increasing distance between primary production and consumer means that fewer inherit knowledge concerning practical animal care through their own experience.
- The international tendency towards an increasing lack of confidence in large scale animal care ("industrial animal care") sets increasing requirements for documentation, also under Norwegian conditions.

9.4.4.2 Actions

Openness concerning results from enforcement actions and invitation for consumer participation

The Ministry of Agriculture values openness and access to information about the management of laws and regulations which concern animal welfare. To improve access and to stimulate improvement and knowledge based debate in society the managing authorities shall provide a yearly report concerning animal care and animal welfare which will be targeted at the general public. The report shall use known welfare indicators and give an overview of the management activities in the area. The managing authority shall facilitate a dialogue in appropriate places between consumers, industry, academia and authorities about the challenges in the report.

Knowledge sharing about animal welfare and the value foundation for the care of animals

A clearer distinction of work in society has created a distance between the active stakeholders within fisheries and animal farming and the increasing part of the population which has no direct connection with the industries. This development will probably continue. The need to equip new generations in our society with knowledge, interest and positive attitudes towards to animals and animal care will therefore increase. The introduction to animals and animal care which is given in the education plans for the schools for children aged 6 to 16 should be extended to also include ethics and animal welfare. The subject could be well suited for special theme days.

Allow for product marking which covers welfare conditions Awareness amongst consumers about how animals have lived prior to arriving at the chilled cabinets and dinner table is increasing. Consumers demand marking of the products not just for quality and assurance that the products are safe from a health perspective, but also some demand marking which enables traceability of the individual product back to the primary producer in such a way that all parts of the chain can be inspected at will. Today there is a legal requirement concerning individual marking of several species of production animals. An important condition for the traceability of products is therefore in place. The Ministry of Agriculture will facilitate a marking system which can give the individual consumer a real opportunity for personal choice. One will endeavour to have such a system for eggs for consumption and identity marking for leather/skin products.

The responsibility to adopt the use of various marking systems in practice will naturally be with the various producers and parts of the sales chain.

9.4.5 Influencing the international animal welfare framework

9.4.5.1 Summary and evaluation

International work with animal welfare will have a greater meaning and international frameworks will to a greater extent be influential upon national regulations and the level of ambition. The Ministry of Agriculture in this connection wish to emphasise the following as positive:

- Norway has over several years participated actively in international work with the area animal welfare.
- The Council of Europe's conventions and recommendations concerning animal welfare are implemented quickly into Norwegian legislation. In the same way the compliance with the EEA agreement is given high priority.

Some of the developments in the international work with animal welfare and trade in live animals can represent particular challenges for Norway.

- The work with animal welfare in the Council of Europe may have less significance dependent on the EU countries' choice of strategy for their focus in this area.
- Lack of observer status within the EU institutions in the area of animal welfare.
- Requirements for animal welfare as a part of the WTO negotiations.
- Uncertainty connected with the OIE's role concerning animal welfare.

9.4.5.2 Actions

The Council of Europe

The Council of Europe has, since animal welfare was placed on the agenda in 1965, traditionally been the most important forum where this subject has been discussed in Europe. Norway has approved and ratified all five of the Council of Europe's conventions which concern animal welfare. The same applies to the additional protocols which have been adopted for two of the conventions. The contents of the conventions and additional protocols in Norway are implemented in the Animal Protection Act's general requirements and in specific regulations which have been written. Under the convention for protection of production animals written

recommendations have been developed for several species. Apart from the recommendations concerning sheep and goats, duck and geese, Norway has implemented all the recommendations in the form of regulations.

That the European Commission often and increasingly operate on behalf of member countries has in the last few years created a changed and much less beneficial situation for "third countries" to influence the work in the Council of Europe. Many more questions including pure academic/scientific issues are decided upon at a political level in the EU and this in turn limits the dialogues in the Council of Europe.

Nevertheless, the work with animal welfare will be continued and Norway will also in the future play an active role in this work.

The EU Institutions

Whilst the areas animal health and human health are often discussed at meetings where Norway has observer status, this is not to the same extent the case with regard to animal welfare. Animal welfare is discussed to a certain extent in the Standing Veterinary Committee where Norway is welcome. Most of the preparatory work with animal welfare issues takes place in committees under the Council of Ministers where Norway does not have access. Norway may, however, have members of expert committees which prepare welfare issues for the Standing Veterinary committee. The Ministry of Agriculture's goal is to secure Norway a greater extent of influence in EU processes, also in the area of animal welfare.

The WTO agreement

Animal welfare is not a part of the WTO agreement. Norway has for a number of reasons not put forward a request for an independent requirement that animal welfare be included in the WTO negotiations in the current round of negations. The EU has, however, brought animal welfare into the current round of negotiations. The Government will assess ongoing how we can secure room for action in this area in the current round of negotiations in the WTO.

The OIE

The World Animal Health organisation (Office International des Epizootie - OIE) has in recent years become interested in welfare issues. A group of animal welfare experts met for the first time in Paris 2-4 April 2002 in order to raise the OIE's engagement in and responsibility for animal welfare. A number of proposals written by the expert group were discussed at the OIE's annual meeting at the end of May 2002. The Ministry of Agriculture considers it to be desirable that OIE as an organisation is engaged in the area of animal welfare and will propose that Norway shall play an active role also in this work.

9.5 Goals and actions – conditions regarding several species

9.5.1 Breeding and biotechnology

Traditional breeding and use of gene-technological/bio-technological methods in breeding are directly regulated in the Animal Protection Act.

9.5.1.1 Summary and evaluation

The Ministry of Agriculture expects that all organised breeding of animals must have as an objective to protect the animals' health and welfare interests.

The following conditions are worthy of note for future breeding of domestic animals:

- Health must be taken into account to a greater extent in breeding.
- There should be requirements that each breeding objective should include healthy and able bodied animals.
- Breeding of dogs and partly pedigree cats is defined by external breed standards for the animals. This has in many cases represented an increased risk of injury and sickness and lead to reduced welfare. The Council of Europe recommends a critical evaluation of today's pure breed standards for dogs and cats
- Breeding of poultry today takes place abroad.
- The Animal Protection Act's requirements should have consequences for the practical breeding of various domestic animal species and breeds.
- To base breeding on cloning or use of trans-gene animals and farmed fish must continue to be unacceptable in this country.

9.5.1.2 Goals and actions

The Ministry of Agriculture supports the industry in its efforts to influence the international companies involved in poultry breeding to conduct breeding in such a way as to prioritise healthy and robust animals. In addition, the Ministry of Agriculture will in cooperation with representative bodies review breeding operations for the various animal species and evaluate the operations in connection with The Animal Protection Act's requirements.

There does not seem to be a need today for a further tightening of laws and regulation concerning use of biotechnology including trans-genes techniques on animals. It is however necessary to have an ongoing evaluation and open debate regarding our animal breeding and use of modern biotechnology based on the animals' health and welfare ref. the ethical platform.

The Ministry of Health is now working on a proposal for amendments to the Gene Technology Act. The proposal covers the possibility to apply for dispensation from the general ban against somatic cloning of vertebrate animals, for cloning for biological primary research generally and for medical activities when the aim of such activities is the achievement of new methods of treatment for people and animals where there is a reasonable balance between animal ethical consideration and the expected advantages.

9.5.2 Fire prevention

There are no general requirements concerning fire warning equipment in building for animals. A requirement concerning the installation of fire alarms is included in the regulation for hens and turkeys from 2002.

9.5.2.1 Summary and evaluation

In connection with the Ministry of Agriculture's Fire Prevention Year 2002 and under the direction of the Agricultural Fire Protection Committee a good cooperation has been established between the animal industry and the relevant academic environments.

- Concerning fires in animal enclosures and the prevention of such, it is, however, the opinion of the Ministry of Agriculture that animal farmers face major challenges.
- There are more fires in animal buildings where animal life is lost in Norway than other countries it is natural to compare us with.
- The majority of fires occur in connection with electrical installations and the use of electrical equipment.
- Few operational buildings have warning equipment.
- The evacuation of animals during a fire is extremely difficult.

9.5.2.2 Goals and actions

The Ministry of Agriculture will through amendments in the legislation set requirements that when building new large operational buildings for animals and when carrying out major refurbishment of old buildings over a certain size, fire warning equipment shall be installed. The requirement for such installation will be made applicable for all operational buildings with more than a certain number of animals within 5 years.

The legislation shall contain requirements for escape routes which make it possible to evacuate the animals as quickly as possible. In farm animal districts, the fire service personnel should receive training in the practical handling and evacuation of animals. There will as a result of the review be set stricter requirements for fire safety connected with the use of electrical systems and in larger operational buildings there should be carried out periodic fire controls. In its request order number 366, 2002, the Parliament (Storting) requested that the Government as quickly as possible and at the latest in the state budget for 2003 put forward an evaluation of proposed actions and necessary subsequent amendments to the law which are necessary to ensure that living animals' fire safety is at least on a par with the companies which handle the animals at slaughter. The order has been followed up in The Ministry for Labour and Administration in the Parliamentary proposition. nr1. for 2003.

The near and good cooperation which has been established between the animal farming industry and relevant stakeholders, including insurance companies, should be continued.

9.5.3 Handling of animals during transport

Transport of animals is regulated through a specific regulation concerning transport of living animals of 2001. Transport of live fish is regulated through a specific regulation concerning transport of aquatic organisms of 1997

9.5.3.1 Summary and evaluation

There is extensive transport of animals in this country. The majority of transport of live animals is animals for slaughter. Transport will always be a stressful situation for the animals. The following positive conditions exist:

- The industry has created an action plan for the transport of animals for slaughter and has committed extensive resources to prevent accidents, amongst other things "Action Ramp".
- Norway has stricter requirements for transport time for animals to slaughter than what is required in the EU.

There are however many challenges which should be focused upon specifically concerning the transport of animals:

- Scattered production and demand for rationalisation of the structure of the slaughter industry has raised demands for longer maximum travelling time than the allowed 8 hours. In certain areas in Nordland, Troms and Finnmark there is already a general dispensation for 11 hours.
- Live animals can according to the legislation be transported for 14 hours and after a 1 hour break a further 14 hours if the mode of transport fulfils certain specific criteria. These regulations have been implemented through the EEA agreement.
- Loading and unloading from the mode of transport is particularly stressful for the animals.
- High mortality of laying hens under transport.
- The extent of the transport of reindeer has increased.
- Transport of animals, particularly sheep' to and from grazing.
- Transport of sleigh dogs.
- Transport of live fish in special well boats.

9.5.3.2 Goals and actions

The Ministry of Agriculture wants a review of the legislation and will particularly evaluate if the transport times are justifiable from an animal welfare perspective. The Ministry of Agriculture will at the same time evaluate the possibility of unwinding possibility in today's legislation to establish resting stations for inland transport. The Ministry of Agriculture will not allow dispensation for transport times of over 8 hours with the exception of those already given for northern Norway.

In the review of the regulation particular attention will be given to changes which strengthen the control of animals which are not fit for transport and their subsequent removal and that there be established better conditions for loading and unloading of animals. The legislation for state support for the transport of live animals for slaughter will be reviewed. The need for regulation of transport of live animals in other circumstances (grazing animals, sleigh dogs) will also be reviewed. The Ministry of Agriculture will further stimulate the development of better vehicles which are modified for the transport of each species. A review of the existing legislation for transport of aquatic organisms with a view to possible action to improve animal welfare is desirable.

9.5.4 Handling of animals at slaughter houses

The handling of land based animals whilst at the slaughter house and during the slaughter process is regulated by the regulation concerning animal welfare at slaughter houses from 1995. The slaughter of fish is not regulated by a specific regulation under the Animal Welfare Act.

9.5.4.1 Summary and evaluation

All slaughter of animals for human consumption shall take place under pain relief before bleeding. The following positive conditions should be noted at slaughter houses:

- Norwegian slaughter houses shall be approved with regard to animal welfare before they become operational.
- There is a generally a good cooperation between the control authority and the company.
- There has recently been a great deal of work in improving the conditions at slaughter houses, for example through the design and building of gangways and with the killing.

There is, however, an increasing interest and concern amongst consumers concerning how the conditions for animals are within slaughter houses and during the slaughter process. The Ministry of Agriculture will focus upon certain conditions where improvements are required and possible:

- The methods of pain relief which exist today are not optimal for all species.
- During the slaughter process hygiene requirements and regard for welfare may conflict.
- With regard to animal welfare it seems to be an advantage to have a decentralised and differentiated slaughter structure.
- Well run field slaughter houses, mobile abattoirs and farm abattoirs ensure
 considerations for animal welfare in a good way.
 Some abattoir companies seem in practice not to offer facilities for emergency
 slaughter. This can lead to animals which are not fit for transportation being
 transported to the slaughter house anyway.
- Some home slaughter takes place of various species whilst at the same time some animals are put down on the farm for various reasons.
- At many slaughter houses for farmed fish it is common practice that the fish
 are put into waiting enclosures. Confinement in these enclosures can be for
 long periods of time.

9.5.4.2 Goals and actions

There should be stimulation for the development of new and better methods for pain relief and slaughter. The Ministry of Agriculture will through the review of the legislation concerning the stabling of animals at the slaughter house, driving and during the slaughter process itself make it clear how necessary the balance between hygiene and welfare conditions is. The controlling veterinarian who is responsible for controlling the handling of live animals should continue to be a public employee.

Animals which are to be slaughtered and presented for official meat control must be handled with respect for the welfare of the animals during transport and stay at the slaughter house, and in connection with slaughter. The opportunity for killing and subsequent carcass treatment for seriously ill or injured animals are in practice important to prevent suffering. There should therefore be competent personnel available for killing and possible subsequent carcass treatment throughout the country and also outside of normal working hours. This can be ensured through the training of selected animal owners or other persons in killing and subsequent carcass treatment. Slaughter houses which receive larger animals (cattle, pigs) for slaughter should be given responsibility to establish an emergency slaughter facility which is operational for its own customers.

The Ministry of Agriculture will evaluate if there is a need to develop a regulation

which regulates the killing of various species outside the slaughter house. The Ministry of Agriculture will also evaluate whether to further develop regulations for the slaughter of farmed fish.

9.6 Goals and actions for the individual species

By comparing the goals mentioned before with current legislation and the knowledge one has from Norwegian husbandry in practice, it is proposed in the following concrete goals for various animal species and productions. The many external contributions which have been received during the process have also been evaluated in this connection. It is natural that the proposals which have been forwarded should be subjected to a thorough impact assessment and be discussed with all the parties concerned before the requirements are introduced as concrete regulations. It is, however, the Ministry of Agriculture's view that it is necessary to set concrete goals which shall give direction to the development.

The Ministry of Agriculture does not wish to present further goals and actions for the animal species which are named in chapter 6 but not in chapter 9.

9.6.1 Aquatic farmed animals

Fish farming has in a short time become one of the most important industries in our society and the growth potential is still calculated as great. In 2001 more than 110 million salmon and rainbow trout were slaughtered. Fish farming is therefore definitely the largest amongst the animal farming industries.

The fish farming industry has grown large after the Animal Protection Act of 1974 was adopted and there is today a limited legislation which regulates fish farming with respect to animal welfare. The Council of Europe is in the process of developing recommendations concerning the care of various species of fish in farms under the convention concerning protection of production animals.

9.6.1.1 Summary and evaluation

The Norwegian farm industry has the following opportunities and advantages:

- Fish farming is nationally a very important industry with financial opportunity to focus upon animal welfare both through research and follow up of practical farming.
- Many of the infectious diseases have been brought under control with the help of vaccines and good infection hygiene.
- The coast offers many well suited locations for farming.

The Ministry of Agriculture is of the view that it is important for Norway to maintain a high standard concerning ethics and animal welfare in fish farming in the future. These are factors which are included in the extended definition of quality and will be demanded more often by consumers of Norwegian salmon. In this respect the Ministry of Agriculture would like to point out several problems and challenges where there may be a potential for improvement:

General challenges

- Even though the knowledge basis concerning farmed species' general biology, welfare and welfare indicators has increased in the last 30 years there is a need for more knowledge.
- We lack tradition for treating fish as animals with senses.
- Public regulations for operation and production shall also ensure consideration for animal welfare.
- Fish in fish farms must be provided with an environment which is tailored to the various species and development stage needs concerning water quality, temperature, population etc.
- High proportion of disabilities and other production injuries.
- The nutritional ingredients of feed must cover the species' needs through various phases.
- Better routines for the catching and killing of sick or injured fish.
- More careful handling of fish during amongst other things transport and release.

Special Challenges

Parent fish:

• The selection of functionally healthy individuals in breeding.

Fry and smolt:

- Ensure environmental conditions during incubation and hatching which gives a reduced frequency of side effects such as development of deformities and subsequent illness.
- Inadequate water quality is a general problem.
- Aim at adequate farm conditions which do not give aggressive behaviour.
- Ensure the fish are well developed smolt at the time of release in order to reduce mortality and problems with balance of fluids.
- Continue the development of new vaccines and vaccination routines which give fewer side effects.

Edible Fish:

- Population and other production conditions must be tailored to the quality of the farm location and the fish's behaviour.
- Develop better technology and operational routines with regard to surveillance of fish together with cleaning of nets, protection from predators and preparedness for measures against algae, jelly fish and similar threats.
- Framed fish are starved sometimes for long periods as a method to tailor production by the farmer.
- Stimulate the improvement of the slaughter process first and foremost through the continuing development of new and better methods for the relief of pain.

9.6.1.2 Goals and actions

Increased attention concerning animal welfare with the farming industry is important in that it can contribute to changes of attitude which can directly lead to better routines for the treatment of fish. The industry is therefore encouraged to develop guidelines or an action plan for animal welfare in fish farming. The Ministry welcomes a continued focus on this area in the coming years.

Research

It is very important for the farming industry that there is increased knowledge concerning welfare requirements for various species of farmed fish. Research in this area is amongst the prioritised areas with The Norwegian Research Council and the Ministry of Agriculture welcome a continued focus upon the area in the coming years.

Production Regulation

The Ministry of Agriculture wishes to carry out a review of current standards for the regulation of production concerning the health and welfare of the fish. The goal is to regulate the industry through means which are neutral concerning the welfare of the fish.

Out of consideration for hygiene and quality starvation as a tool is accepted before slaughter and during sorting and transport. Starvation is also used regularly with respect to delivery of medication or cases of mortality at the farm. Starvation as a tool in production regulation is a challenge with respect to ensuring animal welfare.

When the recommendation from the Council of Europe concerning the protection of farmed fish is completed it will be clarified how this can best be implemented in Norwegian legislation.

Production suffering and transport

The Ministry of Agriculture will work to reduce the incidences of disabilities and other production related suffering amongst farmed fish. They also wish to reduce mortality of smolt during transport and release into the sea. It is desirable to review the existing regulations for transport of aquatic organisms to achieve this. Suitable tools including public regulation in the area will be created in cooperation with the industry and academic environments.

Slaughter

The Ministry of Agriculture wishes to stimulate research and development of methods for safer and improved ways of pain relief during slaughter. It is being considered to propose a maximum time in the waiting nets before slaughter or other concrete proposals for action to prevent unnecessary waiting for slaughter fish in waiting nets.

New species

Until now salmon and rainbow trout have been the dominating species in Norwegian fish farming but new species are now being farmed such as halibut, cod and wolf fish. The Ministry of Agriculture ask the industries and the research community to prioritise animal welfare in the development of farm environments for these species.

9.6.2 Cattle

The keeping of cattle is regulated in the regulation concerning the keeping of cattle and pigs of 1996.

9.6.2.1 Summary and evaluation

The Ministry of Agriculture presents the following advantages for Norwegian cattle keeping:

- The industry has developed an extensive action plan for animal welfare. Many of today's problem areas are named and discussed. It is stated amongst other things that free range is the future operational method and that all milking cows shall have a soft bed within 2006. Pens with plank flooring which covers the whole area are no longer recommended for heifers. The industry will develop Norwegian recommendations with concrete proposals for equipment solutions. In the case of outside operations it is recommended that highly used areas are drained and step solid. Within 2008 all operators will have taken part in a course and been awarded a competence certificate.
- The health card system gives a very good overview of the health situation in milk production both nationally, in the herd and in the individual animal.
- The Health Service Cattle, which is the industry advisory service which works with prevention of sickness, is well developed.
- In the breeding work health attributes are given much weight. Lack of horns is prioritised in order that the removal of horns in time will be unnecessary.

There is nevertheless good reason to look closer at the following conditions with respect to animal welfare.

- ⇒ Today's most common operational method, barns with pens gives the animals a minimal freedom of movement for up to 10 months every year.
- ⇒ Cow trainer, which is an electrified arc which makes the cow excrete behind where it lies, is a stress element for the animals. Cow trainers are still used in most barns with pens in order to make cleaning easier and improve milking hygiene.
- ⇒ An open connection between the animal quarters and the dung cellars presents a health risk.
- Concrete floors are not an acceptable bed for cattle in any kind of pen.
- The calf is often taken from the cow immediately after birth. Operational methods which enable greater contact between the cow and the calf during a period after birth are desirable.
- Cows, calves and young animals should be kept under operational methods which allow free movement and social contact.
- There is a need for alternative stalling methods for young animals generally and particularly oxen. The space conditions for young animals in boxes must improve.
- All animals must have an opportunity to come outside. Today the requirement concerning outdoor exposure concerns only cows and heifers older than 6 months which are stalled in a box.
- Hoof health and hoof care have not been sufficiently focused upon. There is a need for regular hoof treatment regardless of bedding material in the box
- There will be a need to create adequate ground conditions in the most trafficked parts of the land. Furthermore, there should be focus upon the duty to carry out surveillance.
- Information concerning the health properties of imported animals and semen may not be available. It will be a challenge to ensure good health, f. ex. few birthing problems amongst the meat cattle. The import of

animals/species with known problems such as Belgian Blue must be avoided.

9.6.2.2 Goals and actions

The Ministry of Agriculture has in the first phase chosen to prioritise the following areas:

Free range for all cattle

Traditionally milking cows are bound in the box. Even though in the last few years there many free range barns have been built, 90% of milking cows are still kept in boxes. The binding of cows in a box is one of the situations in our care of animals where the denial of freedom of movement is greatest. The freedom of movement is reduced further through the use of the cow trainer. A development is desired where all cattle will be given the opportunity for free movement. It is therefore proposed that from 2004 a ban will be introduced against the building of barns with pens and extensive restoration of barns with pens to continue to be used as such barns, and that state support for new building and extensive refurbishment of such buildings is discontinued. The Ministry of Agriculture proposes in addition free range for all cattle within 20 years.

The majority of barns with pens and many free range barns have an open connection between the manure cellar and the animal quarters which represents a significant potential health risk for the animals and keepers. New buildings should therefore have manure cellars separate from the animal quarters. The Ministry of Agriculture will assess risk reduction actions in existing operational buildings also.

In the coming years it will be necessary to increase focus on the development of more economical operational buildings for cattle f. ex. cold barn solutions. Consideration for the animals' welfare must be assured in this very important development work.

Beds, lying space and cow trainers

Research has shown that cows have a very strong preference for a soft bed. It has also been shown that lying time for cattle on concrete floors is significantly reduced in comparison to animals which have a soft bed, from 12 down towards 7-8 hours per day. It is the view The Ministry of Agriculture that beds shall be in place for cows in all existing box and free range barns during the course of 2005. It is proposed that in new buildings and in extensively rebuilt existing operational buildings lying places shall be constructed for all cattle of all ages. The lying places shall be sheltered and dry and all of the animals should be able to lie at the same time. The Ministry of Agriculture wishes to increase the control of cow trainers and will possibly consider a ban.

Outdoor exposure

In the current regulation concerning the keeping of cattle, all female animals which are standing in a pen shall have access to free movement and motion for 8 weeks during the course of the summer months. It is proposed that this be applied to all cattle with the exception of non castrated oxen over 6 months. The exception for oxen is maintained for safety reasons and because there are practical problems connected with holding male animals safely fenced in. Outdoor exposure shall preferably mean grazing, but outdoor airing areas should be created in those cases where grazing can

not be provided.

The Ministry of Agriculture proposes that this arrangement will be in force within 10 years.

9.6.2.3 Tools

The approved changes must be incorporated in a new regulation concerning keeping of cattle.

9.6.3 Pigs

The keeping of pigs is regulated in the regulation concerning the keeping of cattle and pigs of 1996.

9.6.3.1 Summary and evaluation

The pig industry has been through large investments and has shown the ability to change in connection with the requirement concerning free range for sows which was made applicable to all barns from 2000. The Ministry of Agriculture will present the following as positive indicators for the Norwegian pig production:

- The pig industry has developed an extensive action plan for animal welfare which in several areas exceeds the requirements in the relevant regulations. Increased use of straw, activation material, coarse feed, no nose rings, fire prevention and warning, stop to tooth clipping, proper care or putting down of sick pigs, goal for free roaming sows also during farrowing, reduced piglet mortality, alternatives to castration, breeding for better health and mother qualities and introduction of a certificate of competence.
- Sows are kept in the free during the pregnancy period and during the majority of the piglet period.
- The health service for pigs, which carries out preventative health work, is well established. Many populations have been cleared of troublesome sicknesses through a clearance programme, and the health of pigs for slaughter has been improved. Health cards have been taken into use.

The following are remaining challenges and areas where improvement is required:

Sows and piglets

- The fixing of sows in the period around birth creates significant restrictions to normal behaviour in a situation where the sow has particularly strong behavioural needs.
- More pigs should be given the opportunity for outdoor exposure, but without the need to use a ring in the nose.
- There is a need for an improvement concerning free operational systems which give the sows activities, reduce aggression and give fewer hoof problems.
- Pigs must be fed in such a way as to provide the necessary nutritional needs and that also gives a feeling of being full.
- The loss of piglets, which is currently at 14-15%, should be possible to reduce.
- There is a need to develop alternatives which make castration unnecessary before the ban against castration becomes effective in 2009.

• Tooth clipping of sucking pigs should be replaced with rubbing.

Slaughter pigs

- Tail biting is a big welfare problem.
- Boredom is considered a welfare problem which can result in abnormal behaviour.
- The work with improving the health of slaughter pigs should continue. This applies both to infections and skeleton suffering.
- Fighting is a problem when animals are mixed together. Operational routines which reduce aggression should be chosen.
- The transport of slaughter pigs, herding, temporary stalling and mixing of animals are all problematic areas where there is still a need for better systems and routines.
- Pain relief before slaughter is an area which should be followed up with a view to improving the methods used.

9.6.3.2 Goals and actions

Free range for all pigs

Earlier gelded sows where held in boxes with severely limited freedom of movement. Today's regulation represents a significant improvement but it is a dilemma that the sows can still be fixed a short time around birth when the behavioural needs are particularly strong. With a view to satisfying the behavioural needs, the goal is that all pigs including sows during birth shall be kept in free range with 10 years. Birth pens for free range sows during birth will require a slightly greater area than today's minimum models in order to avoid an increase in the loss of piglets.

Internal environment and feeding

Pigs are curious and active animals. A basic need for the species is to be able to forage in soil or other manoeuvrable material. It is proposed that all indoor quarters for pigs should be designed and enhanced in such a way as to give the pigs enough space for relaxation and activity and appropriate occupation. Tail biting should be prevented through environmental action and the ban concerning tail cropping should be continued. There shall be sufficient space and opportunity for concealment in order that the animals can avoid aggressive congeners. The feed shall be composed in such a way that it gives the animals a feeling of being satisfied.

Ban against castration

The Parliament (Storting) has declared that routine castration of small pigs shall cease within 31 December 2008. The Ministry of Agriculture will ensure in consultation with the industry that this declaration is followed up.

Ban against nose rings

The Ministry of Agriculture will consider not allowing dispensation from the ban against fixing a ring to the pig's nose.

9.6.3.3 Tools

The approved changes concerning free range, improved internal environment and a suitable feed ration must be included in a new regulation for the keeping of pigs.

9.6.4 Sheep

The keeping of sheep is currently not regulated in a specific regulation under the Animal Protection Act, but Norway is required to follow up the Council of Europe's adopted recommendations concerning the keeping of sheep.

9.6.4.1 Summary and evaluation

The following can be pointed out as characteristics of the methods of sheep keeping which contribute positively to the animals' welfare:

- The animals' natural behaviour is to a large extent ensured through today's operational methods.
- Wilderness grazing under safe conditions gives freedom and good welfare.
- The industry has developed an action plan for animal welfare.
- Health service and a health card scheme for sheep are established.

The sheep husbandry is never the less facing several challenges.

Wilderness grazing with an unacceptable level of loss. Of approximately two million sheep and lambs which are released for grazing, 120 - 130,000 animals, the majority of which are lambs, have been lost each year. The reasons include poisonous plants, illness, parasites and predators, as well as accidents. The animals are often subjected to long term suffering before they die. There is a need for:

- A more effective control during the grazing period.
- Ensure that animals which are released into rough grazing are suited for it.
- Avoid unsuitable grazing areas f. ex. grazing areas where there has been great loss.
- There is a need to look closer at facilitating coexistence between sheep and protected wild predators.
- More knowledge concerning cultivated pasture f. ex. choice of plants, maintenance, parasite and illness control.
- The level of knowledge amongst sheep owners varies greatly and should be strengthened.
- Sheep which are outdoors all year round: accessibility, poor control and a lack of nutrition can constitute problems.

In the indoor feeding period:

- Stretch metal used as beds is problematic in cold houses for new born lambs and when the sheep have been sheared.
- There can be too many animals with respect to space, particularly during the last part of the pregnancy.
- Poor feeding occurs too often.

Good health should be prioritised in breeding, including action against wrongly placed eye lid.

9.6.4.2 Goals and actions

Reduced loss in connection with grazing

Lamb meat production in Norway is based on the exploitation of rough grazing resources. Very few populations are based upon home field grazing. The use of rough

grazing is an operational method which is optimal for achieving and satisfying the animals' basic needs. Approximately two million sheep and lambs are released for grazing in the spring each year. In the last few years approximately 120,000 animals have been lost whilst grazing, the majority being lambs. The loss of animals during grazing is caused by several factors, such as illness, parasites, poisoning, accidents, predators, etc. The total loss in 2001 represented approximately 6% of all sheep released into rough grazing whilst compensation for loss due to big predators represented 1.5% of all sheep released into rough grazing.

There are, however, very large variations regarding loss to predators, even between the different herds.

With regard to incidences of sickness in sheep an increase has been registered over the last year of all sicknesses which are registered in the sheep control. Participation in this control is, however, still only 18% and it is therefore difficult to provide an accurate picture of the sickness situation and development in the existence of certain sicknesses in sheep.

There is no doubt that the high level of loss represents pain and suffering for many animals. Even though many animals are instantaneously killed by wild predators or die quickly due to other causes, it is clear that many animals also go through a long period of suffering. The use of such grazing is on the other hand very positive for the animals and it is therefore desirable to find a balance between the use of such grazing and what can be accepted in terms of suffering whilst grazing.

The Government will state that the Animal Protection Act also applies to people's responsibility for the care of animals and tame reindeer whilst grazing in the wild and that it therefore places a duty to carry out the necessary control and action to ensure animal welfare whilst grazing, including action to reduce loss caused by wild predators. The duty to control is not so extensive that users, where other effective actions to reduce injury by wild predators don't exist, are required to reject the use of traditional grazing areas for grazing. (Reference is made to the Ministry of Justice's interpretation of the Animal Protection Act's fundamental principle from 5 November 2002, which is attached an unpublished attachment to this report).

The requirement for control cannot, however, be as strong for grazing animals as for animals which are standing in stalls and are therefore totally dependent upon feeding and care. It should also therefore be acceptable that there are slightly higher numbers of losses whilst grazing than whilst feeding inside or feeding on fields. Even though it is very difficult to put a concrete figure on what can be seen as acceptable loss whilst grazing, the Government is of the opinion that animal welfare must be strengthened and suffering reduced whilst grazing through reduction of today's high losses.

This involves the Government carrying out stronger control of grazing areas for sheep and ensuring that they are of a quality class and with vegetation which give adequate grazing resources, which to the greatest degree possible is free of "traps" in the terrain which can cause accidents and which is free of vegetation which can cause sickness in the animals (for example Alveld). Sheep and lambs which are released for grazing must be in good condition have adequate milk production, and there must be preventative health actions in place (vaccination, parasite treatment). The Government

proposes to enable the further development of actions which can prevent loss in vulnerable areas.

From an animal welfare perspective it has been shown that rough grazing with sheep in important habitats for bear, wolf and to an extent glutton is difficult to defend. In areas with great conflict because of wild animals, solutions should be sought which to a greater degree than today's compromises remove the opportunity for direct contact between grazing domestic animals and these predators. It is the view of the Government therefore that there must be stimulation for operational adaptation or the moving of grazing animals out of the important habitat for bear, wolf and to an extent glutton, to a greater extent than today. This involves the prioritisation of agricultural political resources more actively where it is necessary to carry out adaptations in the use of rough grazing in order to reduce loss and animal suffering. In accordance with this, the Government suggests the following principle area management in connection with the classification of grazing areas:

Wild predator areas

The Government proposes that traditional grazing without any form of adaptation to the permanent occurrence of large wild predators must yield where it is particularly important that bear, wolf and glutton are protected. This will specially be in core areas for bears where the bear density is over a certain level, in areas with family groups of wolves within a management zone, and in limited habitats for glutton where the density is particularly large and the area has a great significance for the glutton's survival. This will apply to areas where the extent of injury is so great that it is not ethically acceptable to have free range domestic animals grazing without adequate preventative measures which can remove the opportunity for contact between domestic animals and wild predators.

In such areas there must be agreement amongst grazing area users concerning alternatives for the use of the area, for example; common grazing projects combined with moving the grazing animals to another grazing area, fencing with predator proof electric fencing, early gathering or permanent grazing on fields, herding and the use of dogs, conversion to a different operation etc.

Grazing areas

Areas where domestic animals should be given preference apply specially to areas with high sheep density and areas which are not natural habitats for breeding wild predators. It shall not be acceptable to establish breeding wild predators in these areas as long as the total population of the relevant species is adequate to ensure the species' survival. Roaming animals which come into grazing areas shall be destroyed on a low scale of injury. Also this is dependant on the total population of the relevant wild predator species being adequate to ensure survival of the species.

It is the Government's view that such area management will not represent a risk of loss of established grazing rights. It is desirable that such management of the grazing areas to a large extent is conducted on a voluntary basis with subsequent positive allocation of agricultural political resources. A more concrete position regarding such differentiated area management of wild predators and grazing animals with increased coordination of the use of resources from the agricultural and environmental authorities will be followed up in the wild predator report.

With regards to the tame reindeer operations it is difficult to see the same area management as proposed for domestic animals. Tame reindeer operations take place in approximately 40% of this country's land and it will not be possible in the same way as for domestic animals to find alternative grazing areas or other practical solutions which can separate wild predators and tame reindeer. The work must therefore be concentrated on adapting the population management in such a way so that hunting of wild predators is done in the areas which represent the most important habitats for reindeer. This applies particularly to areas which have significance as calving land and nurturing areas. It is not acceptable to establish family groups of wolves in tame reindeer areas. A central condition in order to reduce the combined loss in reindeer operations is reindeer operations adapted to the natural resources, with tame reindeer in good condition.

Injuries caused by eagles represent a problem in parts of the tame reindeer industry. This will be followed up in the work with a new wild predator report.

Reliable wild predator estimates and confidence in the statistics are important seen from an animal welfare view point.

The agriculture industry has lobbied for that the Animal Protection Act takes precedence over the Wild Animal Act, in other words that the Animal Protection Act will allow for the hunting of wild predators which injure domestic animals. It is the view of the Government that this will weaken regard for sustainable wild predator populations and that the conflict between domestic animals/tame reindeer and wild predators must be resolved within the current two parallel Acts and the actions which are implemented under these.

The regulation of sheep keeping

Norway has ratified The Council of Europe's conventions concerning the protection of animals and the recommendations which have been developed for various animal species. In order to, amongst other things, comply with our international commitments, the Government proposes that within the grazing season 2004 there will have been produced a regulation concerning the keeping of sheep and lambs in barns and whilst grazing. The regulation must have requirements for space and flooring in pens, feeding, frequency of checks in barns and whilst grazing, requirements for animals which are released to graze and grazing conditions. The regulation must also cover sheep which are outdoors all year round, requirements for operational conditions must be defined, accessibility for regular checks, access to feed, climatic and other conditions.

A number of incidences of serious under feeding of sheep during winter time have been registered. The following up of such a regulation will also contribute to such incidences being prevented to the largest possible extent.

9.6.5 Goats

Goat keeping is today not regulated in a specific regulation under the Animal Welfare Act but Norway is committed to following up the Council of Europe's adopted recommendations concerning the keeping of goats.

9.6.5.1 Summary and evaluation

The most important advantages concerning goat keeping with regard to animal welfare are that:

- The industry has developed an action plan for animal welfare for goats.
- A health card system is established.
- Goats are kept in free range.

At the same time it is clear that goat keeping faces important challenges in the future such as:

- Several chronic infectious diseases have a significant presence in Norwegian goats. These represent an important welfare problem.
- Barn environments should be improved.
- Space conditions in barns for goats are often bad.
- Problems with ventilation are widespread.
- Stretch metal as bedding material for goats hardly gives adequate comfort when lying.
- There is today no requirement for grazing or outside living.
- There is a need for better methods when removing horns from kids.
- A large part of young he-goats are destroyed directly after birth, as meat production is regarded as non-economic. This also has an ethical perspective.

9.6.5.2 Goals and actions

The Ministry of Agriculture wishes the following points to be prioritised with a view to improving the welfare of goats.

Better health

The Ministry of Agriculture will in cooperation with the industry contribute to enable that the work with sanitation of infectious diseases continues with a view to bringing important chronic infectious sicknesses under control or have them removed.

The regulation of goat keeping

With regard to what has already been said regarding sheep, it is proposed that within the grazing season 2004 a regulation will be made regarding the keeping of goats in barns and grazing. The regulation must contain requirements for space and flooring material in pens, frequency of checks in barns and whilst grazing, feeding and feed conditions etc.

9.6.6 Tame reindeer

Tame reindeer operations are today not regulated through a specific regulation made under The Animal Protection Act.

9.6.6.1 Summary and evaluation

Reindeer operations are Norway's only nomadic form of operation. Reindeer are kept free whilst grazing the whole year. Reindeer operations have therefore a different, and in many ways a better, starting point than other animal keeping with regard to animal welfare. Important advantages are:

• Tame reindeer live a free life and to a great extent have the opportunity for natural behaviour.

- Low infection pressure and little illness.
- Functionally healthy animals

Nomadic operations and differences between Lap and Norwegian culture give rise to special conflicts and challenges which influence animal welfare directly or indirectly:

- Reindeer operations demand large land areas. Competition over land resources
 puts pressure upon the grazing areas in such a way that both size and quality
 have been diminished.
- The authorities and reindeer operators often have a different understanding of reality.

The following problem areas have today the most significance for animal welfare and should therefore be taken up with a view to finding solutions:

- The nutritional situation must be improved.
- A balance between animal numbers and grazing resources needs to be reestablished.
- Many animals have starved to death because of worn down or inaccessible ("locked") pastures.
- There is a need to spread knowledge regarding the correct feed and feeding during grazing crises.
- The scale of injury and loss of reindeer because of wild predators is too high.
- The practice of driving animals and collecting animals within fences needs to be quality controlled.
- Transportation is a great source of stress for animals which are not use to
 physical restrictions. The conditions should be adapted for solutions which
 allow for local slaughter.
- Evaluate the use of the curved knife for slaughter for own consumption.
- The castration of reindeer, a need for training in the use of pain killers.
- The pressure from parasites (bremselarver) is great in some areas.
- Prevent reindeer being run down by trains.

9.6.6.2 Goals and actions

The Ministry of Agriculture wishes to concentrate its contribution in the following areas:

Framework conditions

The Ministry of Agriculture considers the work with the setting of new framework conditions for reindeer operations in Finnmark to be of the utmost importance for animal welfare. The reindeer operations board's decision of January 2002 concerning highest reindeer numbers for summer grazing districts, determining new grazing times and a new district organisation with siida division for spring, autumn and winter grazing in the West Finnmark reindeer area, will be followed up. A similar process has been started for the East Finnmark reindeer area.

Traditional reindeer operations demand a lot of land. The Ministry of Agriculture will evaluate existing resources to ensure reindeer operations adequate land for an

effective operation in connection with the on-going review of the Planning and Building Act.

Transport and handling

The Ministry of Agriculture wishes to stimulate operational methods and slaughter structures which reduce the need for long transportation. The regulation which protects the animals during containment in working fences and during transport shall be strengthened.

Grazing crisis

The Ministry of Agriculture has as a goal to reduce the losses during grazing crisis. The Reindeer operations management and The Norwegian Animal Health authority shall in cooperation with The Norwegian Laps' Reindeer Operations Association (NRL) evaluate the experiences with the preparedness committees during grazing crisis in Troms and Finnmark, and evaluate the effect of available loss reducing actions. They will when required propose actions which improve the committees' function and more effectively reduce the losses during grazing crisis.

Emergency feeding is a possible loss prevention action and the industry has signalled the need for building up competence amongst reindeer owners in this area. The Ministry of Agriculture will in consultation with the industry and relevant academic parties enable this.

Loss caused by wild predators

A growing wild predator population has lead to great losses from reindeer herds. The losses caused by attacks from wild predators must be reduced for amongst other reasons to ensure a justifiable animal welfare. Glutton and golden eagle cause the majority of losses. These losses also are also connected to that which has been stated concerning loss during grazing crisis.

It is particularly important that reindeer in calving areas are protected against wild predators. Special requirements for herding during calving periods and through to marking, including other resources to ensure that wild animals do not cause injury, in more closely defined calving areas, will be considered in the development of a new wild predator report.

Wolves are not given the opportunity to establish themselves in grazing areas for tame reindeer.

In addition we refer to the discussion concerning action to prevent wild predator attacks on sheep. The actions against attacks on sheep and reindeer must be seen in relation to each other, in order to avoid the displacement of injury between the animal species. A central prerequisite to reducing the total losses in reindeer operations is reindeer operations adapted to the natural resources available, with tame reindeer in good condition.

9.6.7 Hens – egg production

The keeping of laying hens, slaughter chickens and turkey is regulated by the regulation concerning keeping of hens and turkey from 2002.

9.6.7.1 Summary and evaluation

The following welfare advantages are presented for Norwegian egg production:

- The industry has produced an action plan for animal welfare.
- A health service for poultry has been established.
- Beak trimming is forbidden.
- The keeping regulation from 2002 requires environmental improvements with regard to the current cage operations and will ensure more space than required in the equivalent EU-requirements.

Several conditions however are considered as problematic with today's egg production:

- Hens are held in cages with little space. Until 2012 the bare 3-hens-cage can
 be used, from 2012 all flocks shall have gone over to cages where the
 environment is improved with perches, sand baths and laying cases. The space
 required per hen will however not be increased compared with the conditions
 today.
- Free range gives the birds the opportunity for natural behaviour, but incidences of cannibalism, hysteria and feather hacking is today a welfare problem.
- Today's operational forms are based upon the birds not receiving daylight and that the artificial lighting is weak.
- The air quality in hen houses is often bad with a lot of dust and high concentrations of ammonia.
- Breeding takes place abroad and there is therefore no control of breeding.
 Several welfare problems are directly connected to breeding or could be partly solved through breeding intervention.
- There is high mortality for hens during transport and during the time at the slaughter house. Only a few slaughter houses slaughter hens, and this creates long transport distances. The new transport containers are often too broad for the hen houses' walkways, and this causes longer distances to carry and longer stays in the containers.
- The pain killing methods at the slaughter house should be improved (this applies to all poultry).
- The putting down of newly hatched cockerels also has an ethical aspect.

9.6.7.2 Goals and actions

The Ministry of Agriculture wishes in the first instance to concentrate on the following areas.

Free range for poultry

The keeping of laying hens in cages is today the most common operational form in Norway. Even though traditional cages will be phased out and replaced by equipped cages from 2012, as a result of the harmonisation of a relatively new piece of legislation in the EU, it is the view of the Ministry of Agriculture on a principle basis that free range must be a long term goal for Norwegian egg production. Welfare evaluation, however, state that free range operations are not yet well enough developed to represent a clearly better alternative to cage operations during practical operational conditions. The Ministry of Agriculture will therefore stimulate research

and development work which can identify satisfactory free range systems, without beak trimming being necessary. To achieve this, a rearing system and a keeping method, which will ensure the development of a behaviourally adapted hen from an early age to adult animal, must be developed. Conversion to free range operation will not be required until adequate systems are developed.

Breeding

The industry and the authorities must cooperate in the work to influence the international breeding organisations to carry out breeding in such a way as to encourage low aggression, good health and the absence of deformities. This goal can only be achieved through active international cooperation to create the necessary framework for breeding work with poultry.

9.6.8 Hens – slaughter chickens

9.6.8.1 Summary and evaluation

The production of slaughter hens has the following advantages:

- The industry has produced an action plan for animal welfare.
- A health service for poultry has been established.
- Slaughter chickens are held in free range, where the space conditions are good in the first part of the rearing process.

Production of slaughter hens raises a number of important issues where there is a need for improvements:

- Lack of national control of breeding and breeding goals.
- Bone and circulation problems in chickens first and foremost because of rapid growth.
- Poor space conditions in the last phase before being sent to slaughter.
- Restrictive feeding of breeding animals.
- Slaughter can be problematic, ref. other poultry.

9.6.8.2 Goals and actions

Today's legislation allows a density of the animals of 34 kilo living weight per sq meter. The Ministry of Agriculture has as a goal, in cooperation with the industry, to reduce the density. It will however be possible for production operations which satisfy certain stated criteria for environment and animal health, being allowed a greater density than others.

9.6.9 Turkey, duck and goose

The keeping of turkeys is regulated by the regulation concerning the keeping of hens and turkeys of 2002. The keeping of ducks and geese is today not regulated in an individual regulation under the Animal Protection Act, but Norway is obliged to follow up the Council of Europe's adopted recommendations concerning ducks and geese.

9.6.9.1 Summary and evaluation

The following advantages can be mentioned:

• The poultry industry has created an action plan for animal welfare, which covers turkey.

- A health service for poultry, which covers turkey, has been established.
- Turkeys, ducks and geese are kept in free range operations.
- Outdoor operations are common for geese and possible for ducks and turkeys.
- Space conditions are good in the first phase of rearing.
- There does not seem to be significant health problems in farmed ducks and geese.

The Ministry of Agriculture wishes to focus attention on the following challenges:

- A lack of national control of breeding and breeding goals.
- Growth related health problems for turkeys.
- Bad space conditions in the final phases before being sent to slaughter, especially for turkeys.
- Restrictive feeding of breeding turkeys.
- Pain relief and putting down on the occasions when the animals are hung by the legs when alive.

9.6.9.2 Goals and actions

The Ministry of Agriculture wishes to evaluate the density limitations in turkey production. Even though the production of duck and geese for slaughter is limited in Norway, the keeping of ducks and geese should be regulated.

9.6.10 Fur production animals

The keeping of fur production animals is regulated in the regulation concerning the keeping of fur production animals of 1998.

9.6.10.1 Summary and evaluation

The following indications of the Norwegian fur industry contribute positively to the animals' welfare:

- The industry has created an action plan for animal welfare which in several areas goes further than the regulation, and a system for quality assurance has been established.
- The animals are generally in good physical health.
- Bitches and their young are kept together for approximately 2 months.
- The animals are put down on the farm.

The industry, however, is faced with a number of challenges which must be resolved before the rearing of fur production animals can be seen to be generally acceptable. The Ministry of Agriculture wishes, in relation to this, to point particularly at the following issues:

Fur production animals are kept in cages of netting.

- Reduced possibility for movement, and little opportunity to exercise normal behaviour, including the need for occupation and social relationships.
- A need to investigate other operational methods.

Fear and stress strain.

- Better relations between the animals and the keepers.
- A need for a hiding place.
- Breeding for tameness.
- Live animal displays.

- Fertility control and insemination where the animals are fixed.
- The catching of fox with tongs.
- Restrictive feeding.
- Relatively high puppy mortality for fox, puppy killing is normal.
- Animal welfare must be prioritised in breeding.
- Breeding of large animals (Finnish fox) leads to functional problems.
- Farming of mutants and hybrids should be evaluated in a welfare perspective.

Water needs must be fulfilled all year.

The putting down of mink using CO2 has not been adequately investigated.

The Ministry of Agriculture considers it to be right to consider the fur production animals and the fur animal production as one and not distinguish between fox and mink in the way other countries have done. From a total evaluation perspective the Ministry of Agriculture has concluded that it will not propose to stop Norwegian fur production animal keeping. It is underlined that the welfare of fur production animals must be significantly improved in future fur production animal keeping compared with the current operational systems.

9.6.10.2 Goals and actions

The industry has in the course of the last 10 years made a significant effort to improve the welfare for the animals. The Ministry of Agriculture would like this work to continue.

It is proposed that the applicable regulations are reviewed with a view to ensuring that fox are kept in operational systems which give a greater opportunity for movement and to develop normal behaviour. The animals' immediate environment should be enriched so that the animals are stimulated to investigation and activity. They should also give an opportunity for hiding the whole year, overview of the surroundings and desired social contact with other animals. The operational systems must satisfy these goals within 10 years. Breeding and care must encourage trusting animals and breeding must not encourage hereditary defects. The handling of the animals should be possible without the need for the use of tools of force. Situations which represent a great strain for the animals and which are not completely necessary for the operation, e.g. live animal displays, must be forbidden.

Regarding mink, it is proposed that the legislation be reviewed and that the legislation clearly states that the mink must be kept in operational systems which meet the minks' behavioural needs in a better way. The close environment must be enriched by more space and equipment that stimulates exploration and activity. The operational systems must fulfil these requirements within 10 years. Situations which represent a great strain for the animals and which are not completely necessary for the operation, e.g. live animal displays, must be forbidden.

If the mental health of the animals has not been improved significantly within 10 years through breeding, one should consider to stop the keeping of fur production animals altogether.

9.6.11 Horses

There is today an increasing interest for horses and horse sports in the population. The

applicable regulation on horse centres from 1978 applies only to a limited number of the stables, first and foremost riding schools. The normal keeping of horses is not regulated in a specific regulation under the Animal Protection Act. The horse organisations have requested such a regulation.

9.6.11.1 Summary and evaluation

The Ministry of Agriculture would like to highlight the following positive aspects of horse keeping:

- The individual horse often represents a high value, both economic and emotional, for the owner.
- The requirement for a licence for trainers of trotting and galloping horses and new competitive riders has been introduced by the horse sports organisations.

There is, however, little doubt that conditions and situations can be found in the keeping and use of horses, where animal welfare is far from optimal. The following problem areas and challenges can be highlighted:

The owners have very variable knowledge concerning horses' behavioural needs. Stabling and care

- Ensure better care of horses' behavioural needs.
- A good physical stable environment, including ventilation.
- Traditional stabling often means the horse is seldom outside.
- Stabling alone, "garage horse", leads to social isolation.
- Horses that are exclusively outdoors; there is a need to set requirements for operational form.
- No requirement for grazing, freedom or exercise.
- A shortage of well educated hoof clatterers.

Methods and force used whilst taming, training and competitions.

High expectations from the owner regarding performance.

- A need for independent control (a rally veterinarian) in connection with most types of competitions.
- Doping.
- High level of injury, and too quick use of horse after injury.
- The transportation of horses.

The treatment before anaesthesia at the slaughter house.

9.6.11.2 Goals and actions

The Ministry of Agriculture will evaluate the need for a new regulation which applies to all horse keeping with a requirement for adequate stabling, feeding, daily exercise, and freedom etc.

The horse sports organisations are requested to prioritise knowledge of horses' behavioural needs in their system for licensing of trainers and riders. The Ministry of Agriculture will strengthen the control of the use of methods of force and will request that the horse sports organisations work on guidance for the reasonable use of various corrective and additional equipment during taming and training.

Horse sport covers a number of competitive areas in addition to trotting and gallop. There is a need to strengthen the control of the sport. The Ministry of Agriculture will extend today's system of the presence of a state approved veterinarian (a rally

veterinarian) at tote races to also apply to large riding competitions. A clearer definition of which competitions which shall be covered will be developed in contact with relevant interest organisations.

The Ministry of Agriculture will continue to give high priority to the work concerning the reduction of doping in horse sport.

9.6.12 Dogs

The keeping of common dogs in private homes is today not regulated in a specific regulation under The Animal Protection Act. Various regulations which regulate the use of leads and the Act concerning dangerous dogs will be brought together under one Act under the responsibility of the Ministry of Justice.

9.6.12.1 Summary and evaluation

In today's society the keeping of dogs has a great social meaning for children as well as adults. There are more than 400, 000 dogs in this country and these represent a great variety concerning breeds and areas of use.

Norwegian dog keeping is characterised by dogs normally being kept and treated as a member of the family.

Dog keeping is however far from problem free and there is a need to look closer at animal welfare within a number of individual areas. The following challenges can be particularly highlighted:

Knowledge and attitudes amongst owners.

Pulling dogs and other dogs which are kept outside.

- Kennelling and transport.
- Requirement for performance running over long distances.
- Short haired dogs which are kept outside.
- A lack of feeding.
- Ensure a minimum of exercise especially during the summer.
- Doping.

Training methods, for example electrified show equipment.

Breeding.

- The breeding of dogs with deformities to comply with the breed standard.
- Breeding between close relatives, danger of hereditary suffering.

Care

- Over feeding lack of exercise.
- Breeds which need special care.
- Veterinary treatment of sickness and injury in relation to quality of life.

The keeping of dogs also raises problems where the dogs and owners needs must be evaluated against general concerns:

- Protection from dangerous dogs.
- Obligatory use of the lead and the need for exercise.
- The use of live animals as an accessory in the training of hunting dogs.

9.6.12.2 Goals and actions

The Ministry of Agriculture wishes on the basis of a total assessment not to introduce

a regulation of the general keeping of dogs, but will encourage the interest organisations to prepare recommendations for the keeping of various breeds and breed groups.

Some types of dog keeping set particularly great demands upon follow up and competence amongst owners to be adequate. This applies for example to dog keeping with a large number of animals, the keeping of special competition dogs, permanent outdoor dog keeping etc. The Ministry of Agriculture proposes that a regulation is developed concerning special dog keeping (pulling dogs, other dog keeping on a large scale) where there is a requirement for ID marking as well as requirements for the environment, care and control.

Legislation which will hinder the doping of dogs used in competitions etc. will be prepared. In addition there will be a stronger protection for dogs which participate in physically very demanding competitions.

The ban against the keeping of dangerous dogs will be upheld in a new Dog Act from the Ministry of Justice.

The use of electrical training collars is today regulated by the Animal Protection Act and may only be used during active training. The Ministry of Agriculture wishes to reduce the opportunity to use electrical training equipment. It is proposed to ban the use of electrical training, with the exception of avoidance training with sheep, tame reindeer and other grazing animals. Such training may, as is the case today, only be carried out by people who are specially trained for the purpose and the training must be improved.

The judging of dogs at shows is carried out using special external standards for the individual breeds. It is the country of origin for the breed which is responsible for the breed standard. These breed standards have in many cases contributed to an unfortunate development where the preferred external characteristics make the animals more susceptible to disease and injury. The interest organisations are requested to carry out an active and goal oriented national and international campaign to discourage such breeding. The Ministry of Agriculture is concerned about the current situation and is evaluating the regulation of breeding if other actions have no effect.

9.6.13 Cat

The keeping of cats in private homes is today not regulated in a specific regulation under the Animal Protection Act.

9.6.13.1 Summary and evaluation

The general keeping of cats is normally relatively free of problems from an animal welfare perspective. Norwegian cats generally have a life with few limitations where they are able to live inside or outside according to their own choice.

Important challenges related to cats are:

A need to change the attitudes amongst owners, greater feeling of responsibility and more knowledge.

- Interventions to enable easier reuniting of lost cats and owners.
- Uncontrolled over production of kittens.
- Breeding defects amongst pedigree cats.
- Indoor cats, satisfaction of behavioural needs and obesity.

Wild cats

- Welfare problem for the cats.
- Problems for the surrounding environment.

Even though cats undoubtedly have a great social meaning for many people, cats have a status in society which is clearly lower than dogs. Together with the traditional view that cats' ability to manage, this is one of the fundamental causes of the problem with wild cats in many of the big cities. The populations of such ownerless cats undoubtedly constitute an animal welfare problem but at the same time represent an ethical, social and hygiene problem.

9.6.13.2 Goals and actions

The Ministry of Agriculture wishes based on a total evaluation not to carry out any regulation of the general keeping of cats but will request that the interest organisations develop recommendation for the keeping of cats.

The Ministry of Agriculture will, however, introduce an official requirement for ID marking of cats. This is a necessary action to enable the traceability of owners of lost and wild cats and will contribute to making cat owners more responsible. In addition to ID marking there are several areas where it is necessary to have extra control in order to reduce such populations. The importance of such actions being acceptable for society and defendable from an animal welfare perspective is underlined. In the last few years certain communes in cooperation with animal protection associations have introduced control of cat populations with the help of castration/sterilisation and release. Such an intervention must be conditional upon the wild cats being cared for (fed) by individuals or organisations. In addition it may be necessary to put cats down.

9.6.14 Other family and hobby animals

There is today a total ban on the import and keeping of exotic animals as provided by the regulation of 1976. The regulation has first and foremost affected reptiles and amphibians. Birds are not covered by the ban and in practice neither are the majority of exotic animals which were common to keep as family animals when the ban was introduced, such as hamsters, guinea pigs etc. The Wild Animals Act also bans several species. There is today strong pressure from certain groups to liberalise the ban against reptiles, a ban which only Norway has in Europe.

9.6.14.1 Summary and evaluation

Family animals are obtained by people who are basically especially interested in the animals and would like to care for them as well as possible. It has been shown however that the animals do not always have their needs satisfied and their welfare can be bad. The following challenges can be highlighted:

- A large number of species with greatly varying needs.
- Indication of unhappiness and illness in animals can be difficult to understand.
- Variable competence amongst owners.

- Children often have the main responsibility for the animal.
- The animals are often kept in a cage which significantly restrains the freedom of movement.
- Social animals are often kept alone.
- Mating causes excess animals.
- Probably very high mortality amongst aquarium fish.
- Probably a large scale and illegal keeping of exotic animals, first and foremost reptiles.
- Animals which are caught in the wild are sold.
- The owners of illegal animals do not dare to contact a veterinarian.

Several of the challenges are related to a lack of knowledge. That children have responsibility for the daily care does not necessarily represent a problem as long as an adult checks that all is well. The problem has more to do with children losing interest in the animal which is then left in its cage without any social stimulation. The Ministry of Agriculture has evaluated the need to introduce a lower age limit for the purchase of animals but has decided that this is not a suitable intervention to solve the problem.

It is seen as problematic from an academic perspective to justify the differences in the regulation of the keeping of birds in cages as opposed to for example tortoises.

9.6.14.2 Goals and actions

The Ministry of Agriculture proposes to soften today's regulation by regulating a positive list of species of exotic mammals, birds, reptiles and other animal species which are allowed to be kept as family animals. Other animals apart from the common domesticated animal which do not appear on this list will be banned. The positive list will be created in cooperation with relevant academic parties and associations.

All who sell various type of animals (pet shops) today must be approved by The Norwegian Animal Health Authority – the district veterinarian. In connection with the approval the Ministry of Agriculture wishes that information regarding the specific species' behaviour, basic needs and requirements be given out when animals are sold.

9.6.15 Animals for research and education

The use of animals in research and education is regulated directly in the Animal Protection Act and in the regulation regarding testing of animals from 1998.

9.6.15.1 Summary and evaluation

The use of animals in research and testing is a controversial subject even though the strongest criticism has concerned conditions which are not applicable in Norway, for example use of primates and testing of cosmetics.

The most important advantage concerning animal welfare is the increased awareness which is focused towards the necessity and the carrying out of animal testing nationally and internationally in recent years. This awareness contributes to increased awareness amongst the parties concerned.

Amongst the challenges which businesses which use animal testing face, the following can be highlighted:

- A need for ethical reflection concerning the use of animals for research purposes.
- Reduce the use of animals generally and particularly in strenuous tests.
- The animals can legally be subjected to pain and suffering.
- The majority of animas are kept in cages.
- Severely reduced freedom of movement.
- An environment with little stimulation.
- Testing in the field and particularly testing of wild animals is difficult to control
- Grey area with regard to marking of wild animals which are not part of a test.
- Welfare amongst genetically modified testing animals.
- Balance the concern between the researchers' needs for protection and the public desire for transparency.

9.6.15.2 Goals and actions

The Ministry of Agriculture would like the total number of land based animals and aquatic animals which are used for research to be reduced to a minimum which is necessary to carry out testing in a scientific way. The animals which are used in testing must be given the best possible conditions. The Ministry of Agriculture will therefore contribute to the establishment of a national platform, a competence centre, for alternatives to the use of animals in research as is being done in many other European countries. Such a platform will spread information concerning alternatives nationally and internationally and will initiate development of alternative methods and better accommodation systems.

The Animal testing committee is today delegated control responsibility for test animals. There will be a strengthened control of the use of animals in testing in Norway but the Government will not propose to introduce a tax on the use of animals in testing at this time. There will however be set certain target numbers for a desired development for the use of animals and fish in research with a view to reduction, which also takes into account the increase in volume in the particular species of animals used in testing. If the target numbers which are set are not reached within a reasonable time the Government will evaluate the use of economic interventions in the form of taxes or similar.

9.6.16 Animals in zoos

The display of animals in zoos takes place today as a result of a dispensation from The Animal Protection Act. There are however internal guidelines concerning space etc. for various species. These are the basis of an evaluation of an application for dispensation.

9.6.16.1 Summary and evaluation

Through the establishment of Norwegian zoos it is practice to set requirements to space, the topography of the fenced area etc. This contributes to the zoos seeming different to and being presented as more animal friendly than the traditional zoos.

It is not uncommon that zoos breed animals for a season which the zoo then can not take care of or sell/exchange to other zoos when the season is over. The Ministry of Agriculture considers that the calculated production of surplus animals is ethically problematic.

There is a need for an evaluation of each individual animal species for which there is an application from zoos, amongst others with regard to competence on the species and the species' opportunity to thrive in the conditions offered in summer as well as winter.

Wild animals in captivity or pure zoo species can be attractive to wild species outside the zoo's fence. To avoid unfortunate situations as a result of this, the main principle should be that zoos are not established, or that zoos are established with conditions to hinder this where such animals are included in the permission to display. In the case of wild predators and deer this is particularly important.

9.6.16.2 Goals and actions

The Ministry of Agriculture is of the view that there should still be set strict requirements with respect to animal welfare at the establishment and operation of zoos. The Ministry of Agriculture would like the existing guidelines to be evaluated and made into a regulation. It is particularly important that the zoos are planned so as to provide a varied environment and an opportunity to hide.

Zoos will, as a part of the operational conditions, be obliged to develop a plan for the animal care, including reproduction, where the aim is to avoid surplus animals.

9.6.17 Animals in circuses

The presentation of animals at a circus takes place under a dispensation from the Animal Protection Act. The dispensation is given for the season for a certain number of animals and species. There are no regulations regarding circus animals, neither nationally nor in the EU. The transport regulation applies but is not adapted to circus animals.

9.6.17.1 Summary and evaluation

The circus has long cultural traditions and the presentation of animals is traditionally an important part of the show. The industry considers the animals to be an indispensable attraction. The Ministry of Agriculture is aware that the state control of animals in circuses has been strengthened in the last few years. Circus animals are more frequently allowed to stay outside their cage and the tent when they are on tour. It is however difficult to achieve satisfactory conditions for the animals. Particularly the following conditions represent welfare challenges:

- The animals are transported a lot and the transport regulation is not adapted to circus animals.
- The animals have reduced freedom of movement during transport and for some species also outside of transport hours.
- Elephants often show stereotypical behaviour.

 No control of training and training methods as this is an international industry, often with foreign animals and owners.

Animal keeping which is based on a large extent of transport of the animals is questionable particularly for large species and species with special behavioural needs.

9.6.17.2 Goals and actions

The Ministry of Agriculture will regulate a positive list of species which will be approved for display at a circus. Through this action it is envisaged that the total number of species which are displayed will be reduced compared to the situation today. The Ministry of Agriculture is of the view that species such as horses, dogs and cats can be allowed, and possibly other domesticated species may be approved after further consultation with the industry.

It is desirable to continue controlling that the transport of circus animals satisfies the criteria in the Transport Regulation.

9.6.18 Display for other purposes

In the Animal Protection Act there is a general ban against the display of animals if the display is not connected with a breeding activity.

9.6.18.1 Summary and evaluation

Domestic animal displays in connection with breeding are now of reduced significance for production animals but some animals are displayed to an increasing extent at trade fairs and exhibitions, TV programs etc. It is also common that animals are displayed at museums. Display can be very stressful for the animal but in many cases the display is unproblematic with regard to animal welfare.

9.6.18.2 Goals and actions

The Ministry of Agriculture proposes that the general ban in the Animal Protection Act against display of animals is withdrawn and replaced with a regulation which defines animal welfare requirements for such exhibition situations. Amongst other things there will be requirements for the person responsible for the animals at the exhibition to have necessary knowledge about the species involved.

9.6.19 Wild animals

The legislation associated to animals living in the wild is referred to in chapter 6.2.30. In chapter 6.2.30 it is stated that as of today there has not been carried out a systematic review of the relationship between the Animal Protection Act and other authorities' areas of responsibility. There is, nevertheless, a description of certain conditions which the Ministry of Agriculture views as animal welfare challenges.

9.6.19.1 Protection of wild animals

Summary and evaluation

Norway has a population which generally values nature and the outdoor life and as a result is used to respecting animal life. There are however several challenges, which we now face in the work to secure wild animals good living conditions in the future:

- Maintain and develop the population's willingness to protect the fauna and its living areas.
- Increase the level of knowledge concerning animals.
- Barriers in fields and the wilderness, control and maintenance of fences and the use of barbed wire.
- Accidents involving trains and cars

9.6.19.2 Trapping

Summary and evaluation

Important challenges concerning animal protection which we face in the carrying out of trapping are amongst others:

- Attitudes, knowledge and actions amongst trappers.
- Ongoing surveillance and improvement of methods of slaughter.
- Snare and trap trapping.
- A need for documentation of killing effectiveness and the traps' ability to select which animals to trap.
- Control of traps which trap a living animal.

9.6.19.3 Hunting and fishing

Summary and evaluation

Important challenges in hunting:

- Shooting and injuring animals.
- Hunting of threatened wild animals.
- Catch and release as a management principle.

In addition there can be challenges in connection with killing of wild animals without consideration for preservation.

9.6.19.4 Goals and actions

It is important that the Animal Protection Act intention is appropriately included in the operations which concern wild animals. This will contribute to ensuring that our contact with wild animals takes place in an ethical way.

To achieve this goal, the Ministry of Agriculture will take the initiative and contact other authorities with a view to carrying out a closer evaluation of challenges, starting out in the Animal Protection Act's scope.

A total ban will be introduced on the use of barbed wire as a fencing material in domestic animals enclosures.

Trapping methods and equipment must be approved from an animal protection perspective and will be evaluated in connection with the review of the Animal Protection Act

Various aspects of fishing based on the catch and release method have been evaluated. The use of catch and release methods for commercial reasons is very serious. The

Ministry of Agriculture considers there to be a need for a review of the framework for catch and release.

9.6.20 Farming of new species

9.6.20.1 Summary and evaluation

Particularly within aquaculture, there is a great potential for the development of new species for farming. For some time there has also been much interest to start up niche production of farming of various land based animals, from crocodile to big bird. The potential for conflict in connection with the management of wild animals is great. Meat production of farmed game on any scale is today carried out only on deer and some wild boar hybrids but several different game species are being farmed with a view to release. There are regulations made under the Wild Animal Act which today regulate the keeping of land based wild animals.

Important problem areas and challenges in connection with the farming of new species are:

- Special regulations concerning the farming of deer and other game have not been passed under the Animal Protection Act.
- There is normally a shortage of knowledge concerning the animals' nutritional needs, suitable feeds, diseases etc.
- It can be difficult to satisfy the animals' behavioural needs in captivity.
- The capturing of live animals from nature is practiced.
- Fright reactions can be extensive.
- Handling, possible transport, slaughter.
- Injuries from fencing and other barriers.

9.6.20.2 Goals and actions

The Ministry of Agriculture sees the need for ethical standards associated to the domestication and keeping of new species. The species' expected possibility to be able to master a life in captivity must be evaluated against the use value of the products which the domestication of such animals is meant to provide. There will be a greater risk in a development phase than in an operational phase of the establishment of new species. It is, however, also important that such evaluations are done ahead of the development phase. The starting point concerning wild animal species must continue to be that farming of new species is forbidden unless allowed by law or a decision based on law.