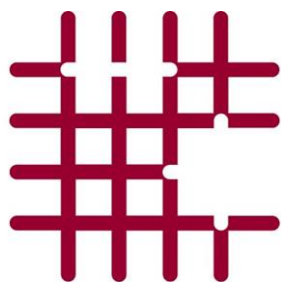


# Assessment Framework for Production Animals

*“All animals are equal but some animals are more equal than others”*



RAAD VOOR DIERENAANGELEGENHEDEN

## Cover letter

The Hague, April 2016

Your Excellency,

It is my pleasure to present to you the advisory report on 'An Assessment Framework for Production Animals', which the Council on Animal Affairs (RDA) has drawn up at your request.

In essence, the choice of whether an animal may be kept as a production animal is a normative choice. In deciding whether or not to keep an animal species for production purposes, a balance must be struck time and again between the objective of production and the potential consequences for the health and welfare of humans, animals and the ecosystem.

The assessment framework we have presented aims to help make this choice in a prudent and consistent manner. The framework can be applied to all animal species and is suitable for assessing animal species which are not yet kept as well as those already included in the 'list of authorised production animals'. We have introduced a three-step methodology: gathering information, performing an analysis and weighing up arguments.

Furthermore, the Council has put forward a number of recommendations relating to the application of this assessment framework. We recommend that the suitability of keeping the animal species first be assessed, before assessing its suitability for production. For newly introduced production animal species, we recommend that exemption initially be granted on an individual and provisional basis subject to certain conditions. These conditions will provide useful input for formulating animal husbandry conditions. The findings should be recorded in a file and the considerations taken into account in making a decision should be disclosed. In addition to the requisite procedural knowledge, the Council considers it important that a clear emphasis be placed on specialist knowledge of production animals in the process. To conclude, the Council recommends that this assessment should also be performed for animals which already have a long history as production animals.

It was a pleasure for the Council to work on this topic. We would of course be pleased to explain the proposal in more detail. The Council wishes you every success in applying this framework.

Yours sincerely,

M.H.W. Schakenraad  
Secretary to the Council on Animal Affairs

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## **Procedure**

This advisory report from the Council of Animal Affairs (RDA) was prepared by a forum of Council members comprising H.M. van Veen, Prof. L.J. Hellebrekers and Dr H. Hopster (chair). The forum held six meetings for the purpose of preparing the report. The forum received assistance in conducting its activities from the secretary M.H.W. Schakenraad and the deputy secretary M.W. Oonk of the RDA team.

## **Guide for readers**

This advisory report begins with an introduction outlining the request for an advisory report. Chapter 2 explains the background to the request. Chapter 3 discusses the aim and guiding principles of the assessment framework and covers the relationship with other RDA advisory reports. Chapter 4 contains a proposal for an assessment framework. The final chapter of the Council's advisory report contains conclusions and recommendations.

## Summary

Further to a request from the Minister for Agriculture, the Council on Animal Affairs developed an assessment framework for all animal species to be kept for production purposes. The Council places a high value on transparent and consistent policy considerations. The Council previously issued advisory reports on new fish species to be used in fish farming (2002) and on the dromedary as a production animal (2006). This new assessment framework enables a comprehensive and consistent assessment to be made of whether it is acceptable to keep an animal species as a production animal. This assessment is based on facts, analyses and values in line with the One Health approach.

In essence, the choice of adding an animal species to, or deleting it from the list of authorised production animals is a normative choice. As soon as a concrete application has been submitted, the interests of humans, animals and the ecosystem will need to be weighed against each other.

The Animals Act (*Wet dieren*) prohibits animals to be kept for production purposes unless the animal species is listed in Appendix II of the Animal Husbandry Decree (*Besluit houders van dieren*). Specific animal husbandry regulations may also be incorporated in the Decree. Furthermore, under the Act it is possible to apply an individual, specific exemption to the prohibition on keeping an animal species for production purposes: an exemption.

This means that three situations are possible for production animals:

- a) An applicant submits a request for an individual exemption for keeping a certain animal species for production purposes;
- b) An applicant submits a request to add an animal species to Appendix II of the Decree;
- c) An applicant submits a request to delete an animal species from Appendix II of the Decree.

The assessment framework can be applied to any of these situations, although the arguments for adding or deleting an animal species may differ. The assessment framework can also be used for animal species that produce different types of products or services. It would be advisable to evaluate the framework regularly to keep it current.

The assessment framework is structured as follows:

### *Step 1: Gathering information*

This step entails gathering information on the consequences of keeping the animal species for production purposes concerning the following three aspects: the animal, humans and the ecosystem. It comprises factual information about the animal species and the envisaged animal husbandry conditions, plus the economic, commercial, ecological and public health aspects.

### *Step 2: Analysis*

Based on the factual information collected under step 1, the potential constraints for the animal's welfare, including its health, are analysed. Furthermore, the potential risks for

public health and the ecosystem are assessed. Lastly, the measures the applicant plans to take to minimise the risk of the identified constraints are examined.

### *Step 3: Arguments and assessment*

During the final step the various arguments for authorising or, conversely, refusing an animal species as a production animal are set out and linked to the values described in the RDA advisory report on One Health. This will serve as a basis for deciding which arguments are deemed decisive in authorising or, conversely, refusing an animal species as a production animal.

The Council has set out the following guiding principles and recommendations for using the assessment framework:

1. Establish a link between the list of authorised pets (*'huisdierenlijst'*) and the list of authorised production animals (*'productiedierenlijst'*). Before answering the question 'can this animal species be kept for production purposes?', the primary question 'can this animal species be kept?' must first be answered in the affirmative.
2. Should there be multiple, fundamentally different husbandry systems or production objectives for an animal species, the Council recommends that each system or objective be separately assessed.
3. In authorising an animal species as a production animal which has not been previously been used for production purposes in the Netherlands, the Council recommends that this always initially be carried out – after a comprehensive assessment – on the basis of individual exemptions. Husbandry conditions must be attached to the exemption to safeguard the relevant animals' welfare. Moreover, conditions can be imposed to register additional animal-related data (output parameters) for the purpose of any follow-up assessments.
4. The addition of an animal species to the list of authorised production animals should always be coupled with specific animal husbandry regulations which are embedded in the designated decree. Where this is not yet the case for the currently designated animal species, the Council recommends that specific animal husbandry regulations for these animals be subsequently incorporated.
5. Facilitate reassessment applications for animal species designated for production purposes. In this regard, stability must be ensured by applying at least a five-year validity period to the conclusion of an assessment or reassessment.
6. Apply the assessment framework not only to the production animals defined in the decree, but also to animal species that produce different types of products or services for commercial purposes.
7. Assess all animal species listed in Appendix II of the Decree with the aid of this assessment framework and record the findings in a file.

8. Ensure that the facts, analyses and values, based on which a decision is taken on whether or not to keep an animal for production purposes, are clear and comprehensible.

In conclusion, the Council wishes to point out that the assessment framework can be adjusted in line with new insights based on the availability of newly acquired knowledge and experience.

# 1. Introduction

## 1.1. *Request for an advisory report*

On 21 August 2015, the Minister for Agriculture submitted the following request for an advisory report to the chair of the Council on Animal Affairs (hereinafter referred to as 'the Council').

'To be able to assess whether it is acceptable to keep an animal species as a production animal, the Council has developed specific assessment frameworks. These assessment frameworks were developed for mammal, bird and fish species. Wageningen University and Research Centre has developed an assessment framework for insects, based partially on the assessment frameworks developed by the Council.

There is a need for a single assessment framework, irrespective of the animal species, which can be used to assess in a consistent manner whether the species can be kept as a production animal in a responsible way.

I would like to receive the following from you by 1 January 2016:

- A single assessment framework, irrespective of the animal species and bearing in mind the assessment frameworks developed earlier, which can be used to assess whether animal species can be included in the list of authorised production animals. The framework should take the animal's health and welfare into account. The risks for humans (not being food safety), plants and the environment should be eliminated, and consideration must also be given to these risks during transportation.
- A methodology for deleting animal species from the list that are currently included, if desired.'

## 1.2. *Scope*

Animal species that may be kept for production purposes are included in Appendix II to the Animal Husbandry Decree. Animals that are not stated in the appendix may not be kept for production purposes. The Ministry of Economic Affairs requires a methodology that can be used to add animal species to, or delete them from the list of authorised production animals. In this advisory report, the Council has focused on designing a procedure and a framework for this purpose.

The Ministry of Economic Affairs' question excludes food safety from the assessment framework. However, the Council has chosen to include this topic in the assessment framework as an aspect of public health.



## 2. Background

### 2.1. *Legislative framework*

In the Animals Act, the intrinsic value of an animal is a moral principle (Article 1.3). However, intrinsic value is not a separate assessment criterion and serves primarily to highlight to the legislature and the policymaker that the animal's interests must be taken into account during each assessment. In other words, all forms of animal use must pass a threshold of benefit and necessity in which the animal's interests as such are taken into consideration.<sup>1</sup>

For provisions on keeping animals, the 'No, unless' principle applies in the Netherlands. This basic legal principle was transposed from the Animal Health and Welfare Act (1992) to the current Animals Act (2011, referred to hereinafter as 'the Act'). In terms of the use of animals for production purposes, Article 2.3 of the Act applies this principle. The first paragraph of this Article reads: 'It is prohibited to use animals for the production of products derived from those animals.' An exception to this prohibition applies to animal species or animal categories (hereinafter referred to as 'animal species') designated by the Minister pursuant to a general administrative order. The Council has been asked to develop an assessment framework for adding or deleting animal species which may be kept for production purposes as an exception to this prohibition.

Chapter 1 of the Animal Husbandry Decree 2014 (hereinafter referred to as 'the Decree') initially outlines a general framework for keeping animals. The Decree subsequently provides more specific rules for 'keeping an animal for agricultural purposes', i.e. 'keeping animals for production purposes'.

An animal may be kept as such if pursuant to Article 2.2(1) of the Act it is designated as suitable for this purpose evidenced by inclusion in the list of authorised pets. The associated criteria are specified in Article 1.4 of the Decree. The animal species may be kept provided that it does not pose an unacceptable level of risk to humans and/or animals and provided the animal's health and welfare is not unacceptably impaired. Species-specific regulations are being developed for keeping high-risk animal species. Moreover, keeping an animal may not be prohibited under the Flora and Fauna Act (*Flora- en faunawet*). For the time being, the list of authorised pets has been drawn up for mammals only.

The designation of animals for production purposes is specified in Article 2.1 of the Decree. Article 2.1. refers to Appendix II to the Decree, which contains a summary of the species and categories of production animals that may be kept in the Netherlands.<sup>2</sup>

General accommodation and care standards for production animals are set out in Articles 2.2-2.5 of the Decree. In addition to these general standards, specific animal husbandry regulations may be set out in the Decree. Specific animal husbandry regulations exist, for

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<sup>1</sup> Based on the explanatory memorandum to the Animals Act, section on acknowledging the intrinsic value of the animal (Section 3.4.1).

<sup>2</sup> The full list contained in Appendix II to the Animal Husbandry Decree is posted on:

<http://wetten.overheid.nl/BWBR0035217/2015-09-15#Bijlagell>

instance, for pig farming (Chapter 2, paragraph 4, Articles 2.11-2.27) and for poultry farming (Chapter 2, paragraph 6, Articles 2.47-2.76).

## **2.2. Definition of terms used**

In preparing the report, the Council has applied the definitions set out below. While the Council is aware that no definition is conclusive, the aim of this paragraph is to explain which elements should be taken into account.

### *Production animals*

Animals kept for the production of animal products (see the definition of animal products).

### *Animal products*

Products derived from animals, either processed or unprocessed, and derivative products, including live products such as hatching eggs, sperm, egg-cells and embryos.<sup>3</sup>

### *Animal welfare*

In its 2012 advisory report entitled 'Duty of Care, Naturally', the Council applies the following definition to animal welfare:

'An animal is in a positive state of welfare if it has the freedom to react adequately to hunger, thirst and inappropriate feed; thermal and physical discomfort; injury and disease; and anxiety and chronic stress. In addition, it must have the freedom to display normal species-specific behaviour, which enables the animal to successfully adapt to the prevailing environmental challenges, so that the animal reaches a state that it experiences as positive.'

### *Claims about animal welfare<sup>4</sup>*

Claims about animal welfare should preferably be based on signals, characteristics and the behaviour of the animal itself (performance and output indicators) rather than solely on aspects relating to the husbandry conditions (design and input indicators).

Moreover, in determining performance indicators, it is important to measure performance aspects not only as an indicator for damage to animal welfare, but to ensure that the repertoire also covers the positive characteristics of the species-specific behaviour that contribute to the animal's good state of welfare.

Animal welfare performance indicators can broadly be divided into the following three categories:

1. Physical health and vitality indicators
2. Behavioural and mental health indicators
3. Integrity indicators

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<sup>3</sup> Definition used in the Animals Act, Article 1.1.

<sup>4</sup> Taken from the advisory report on 'Breeding and Reproductive Technologies', RDA 2010

Such indicators, or an assessment of how they will transpire in practice if the animals have not previously been kept for production, constitute the basis for assessing the suitability of the animal species or animal category for production purposes.

#### *Biological characteristics*

This term refers to the biological characteristics of the animal as described in Article 1.4 of the Animal Husbandry Decree.

### **2.3. Previous assessment frameworks**

This is not the first time the Council has developed an assessment framework for production animals or that such a framework has been applied in assessing whether to authorise an animal species as a production animal. In 2002 the Council issued a solicited advisory report containing an assessment framework for new fish species for fish farming purposes. In 2006 the Council issued an advisory report on authorising the dromedary as a production animal, including an assessment framework. In 2008 and 2012 Wageningen University and Research Centre published a report on keeping the dromedary as a production animal, and also published a report in 2012 on 'Authorising insects as mini-livestock', based partially on the assessment frameworks developed by the Council.

The assessment framework for designating new fish species for fish-farming purposes strongly resembles the framework developed for the dromedary. Both are based on information relating to the biological characteristics of the animal species, general information on production and the production conditions, and specific animal welfare risks arising from production.

The zootechnical parameters for these species should show that no unacceptable animal welfare problems will occur during production and how production will be managed in practice. Furthermore, the production objective has been added to the framework for the dromedary and it is explicitly stated that the information must substantiate that the animal is suitable for use as a production animal.

The report on 'Authorising insects as mini-livestock' takes a different perspective. The report suggests that insects are unlikely to experience pain, but that the precautionary principle should be applied given that the lack of proof that insects can experience pain does not constitute proof of that fact. It is considered important that insects' basic needs fall within the appropriate margins, i.e. temperature, humidity and type of food.

The approach adopted is that insect breeding should not pose any unnecessary risks to public health in the Netherlands, the Dutch economy and the country's ecology and that the integrity and health of the insect should be preserved as far as possible during production. The risk analysis serves as the starting point, and it must be verified whether the insect species belongs to the Q-organism or Q-worthy organism category.<sup>5</sup> The framework subsequently follows the route of collecting the insect species' biological characteristics, information on the production process and how the insect's various basic needs can be met.

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<sup>5</sup> 'Q-organisms' or 'Q-worthy organisms' refer to 'quarantine-worthy organisms', which are harmful to plants or plant products based on Council Directive 2000/29/EC (the Plant Health Directive).

The most humane methods of killing insects are also specifically discussed, i.e. freezing, heating and pulverising. The assessment frameworks for fish and the dromedary only require a description of the killing process without specifically discussing the method.

In short, the previously defined assessment frameworks show – besides differences – similarities in terms of the aspect of relevance of the animal species' biological characteristics to accommodation facilities. The differences relate to the starting points of the analysis in assessing whether an animal species can be kept as a production animal in a responsible manner.

What is lacking is a clear-cut method for making a consistent assessment for all animal species, based on facts, analyses and values. The earlier assessment frameworks focus primarily on the facts and analysis of the animal's health and welfare while omitting to address different types of arguments, such as those relating to economic value or contamination of the ecosystem.

The assessment framework developed in this advisory report aims to serve as a framework for a comprehensive assessment in which all relevant values are taken into consideration. Details of the framework are set out in Chapters 3 and 4.

## 3. Starting points for the assessment framework

### 3.1. Introduction

In essence, the choice of adding an animal species to, or deleting it from the list of authorised production animals is a normative choice. As soon as a concrete application has been submitted, the interests of humans, animals and the ecosystem must be weighed against each other. This is based on the assessment framework in the RDA's 2016 advisory report on One Health.<sup>6</sup> It can be used to make a comprehensive assessment in authorising an animal as a production animal.

The Netherlands has a list of animal species that may be kept in this country: the list of authorised pets. The Council has taken this list as a starting point. To qualify for inclusion on the list of authorised pets, the question 'can this animal be kept?' must first be answered. Only after it has been answered can the question: 'can this animal be kept for production purposes?' be answered.

The assessment framework presented aims to provide guidance in assessing the interests of humans, animals and the ecosystem based on facts, analyses and values. The assessment framework organises the assessment of these interests and makes the process explicit and transparent. The assessment framework can be used for an individual exemption for keeping a certain animal species for production purposes as well as for a decision concerning the addition of an animal species or animal category to, or deletion from Appendix II of the Decree.

The above starting points are explained in the following paragraphs.

### 3.2. Advisory report on One Health

In its advisory report entitled 'One Health', the Council outlines an assessment framework for policy decisions. This assessment framework aims to optimise the overall welfare, including the health, of humans, animals and the ecosystem in a transparent and balanced manner. The basis for this assessment framework was laid in the 'Agenda for Public Policy on Animals' (*Agenda voor het Dierbeleid*, RDA, 2010). The assessment framework consists of a diagram illustrating the various elements that form part of an assessment, and a list of points that should be considered.

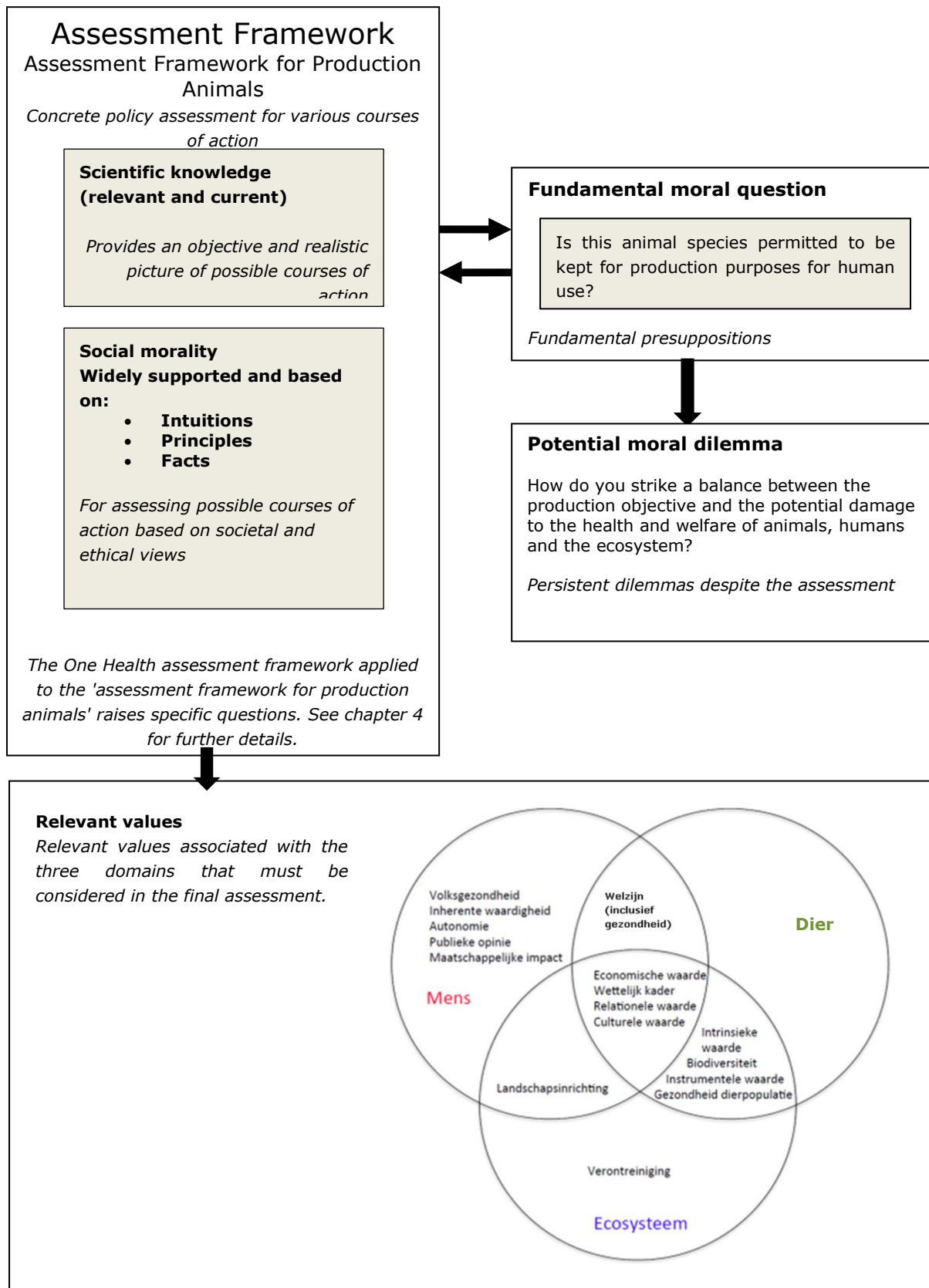
The assessment framework presented in this advisory report is an application of and concretises the One Health assessment framework based on the underlying moral question 'Is this animal species permitted to be kept for production purposes (for human use)?', with the potential moral dilemma 'How do you strike a balance between the production objective and the potential damage to the health and welfare of the animal, public health and the ecosystem?'

The One Health model describes the values relevant to this assessment. The information gathered for the assessment framework and the analysis provide reference points for weighing up these values against each other.

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<sup>6</sup> Advisory report on 'One Health' (RDA, 2016)

The assessment framework outlined in the advisory report on 'One Health' has been worked out in further detail in the diagram below. The values stated in the box below are explained in detail in the appendix.



**Relevant values**  
*Relevant values associated with the three domains that must be considered in the final assessment.*

### **3.3. Relationship with the list of authorised pets**

According to the Council, the decision to authorise or refuse an animal species as a production animal is based on two steps, which logically ensue from the Act. Before answering the question 'can this animal species be kept for production purposes?', the primary question 'can this animal species be kept?' must first be answered.

The mechanism the Netherlands uses for this purpose is the list of authorised pets (formerly also known as the 'Positive List'). If an animal species is included in the list of authorised pets, it may be kept. There are animal species that may be kept by anyone in accordance with the general accommodation and care standards set out in the Decree (paragraph 2, table 1). There also are animal species that may only be kept subject to species-specific husbandry regulations (table 2). If the animal species is not included in either list, this means that it is prohibited to keep this animal species in accordance with the 'No, unless' principle.<sup>7</sup>

The Council's starting point is that animal species which are assessed in terms of their desirability to be kept for production purposes must first and foremost be deemed suitable to be kept by humans in accordance with species-specific animal husbandry regulations or otherwise. In practice, this means that animal species cannot be included on the list of authorised production animals until such time as the responsible Minister has designated them in table 1 and 2 of the list of authorised pets.

For the purpose of the list of authorised pets, the biological characteristics of each animal species to be kept are identified on the basis of literature data and the available practical information. Next, an argument map is drawn up specifying the risks for the animal's health and welfare. In addition to the animal's health and welfare, the risks for humans such as personal injury and zoonoses, are also examined. Based on the above, the Minister decides whether the animal species should be added to the list of authorised pets.

Keeping animal species for production purposes essentially differs from keeping an animal species included in the list of authorised pets for companionship or as a hobby, due to the commercial aspect. This is reflected in the commercial objective of the farm and the applicable legislative framework. These commercial aspects typically have consequences for the way in which the animal species is kept. This usually concerns larger numbers of animals which have less individual space. Their environment is efficiency-driven and their time outside is usually restricted.

For the purpose of the list of authorised pets, only mammals are assessed for the time being. If an application has been submitted for keeping a mammal species for production that has not yet undergone assessment, the Council recommends doing so before a decision can be taken on keeping the animal species for production purposes.

For animal categories other than mammals, the assessment framework presented can be used for production animals. Until such time as animal categories other than mammals

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<sup>7</sup> The compilation of the list of authorised pets has a long history dating back to the publication of the Animal Health and Welfare Act (1992). The full context can be viewed in the Explanatory Memorandum to the Regulation on Animal Keepers in the Government Gazette (no. 2934, publication date 30 January 2015).

have been assessed for inclusion on the list of authorised pets, the Council recommends that inclusion on that list be used as the starting point. Here again, animal species that are not included in the list of authorised pets cannot be assessed for inclusion on the list of authorised production animals.

### **3.4. Legal procedure**

The Animals Act prohibits animals to be kept for production purposes unless the animal species is listed in Appendix II of the Decree. Furthermore, under the Act it is possible to apply an individual, specific exception to the prohibition on keeping an animal species for production purposes: an exemption.

This means that three situations are possible for production animals:

- a. An applicant<sup>8</sup> submits a request for an individual exemption for keeping a certain animal species for production purposes;
- b. An applicant submits a request to add an animal species to Appendix II of the Decree;
- c. An applicant submits a request to delete an animal species from Appendix II of the Decree.

The assessment framework can be applied to any of these situations. Should there be multiple, fundamentally different husbandry systems or production objectives for an animal species, the Council recommends that each system or objective be separately assessed. The different situations are explained in further detail below.

#### **3.4.1. Exemption**

An animal species may be kept for production purposes based on an exemption even if the animal species is not included in the Appendix II of the Decree. An exemption will normally be granted to an individual business owner.

If an animal species is introduced in the Netherlands as a production animal, the Council recommends that the business concerned, following a comprehensive assessment, initially works on the basis of an exemption. At the time of introduction, the animal will in principle not yet be kept as a production animal and there will be a lack of practical knowledge about keeping the animal for the purpose of production in the Dutch situation.

The Council recommends that an exemption always be granted for a maximum period of five years. During this period the applicant should gather practical information relating to the relevant aspects of the assessment framework. Conditions may be attached to the exemption to safeguard the health and welfare of the animal species concerned.

#### **3.4.2. Addition of an animal species**

As a consequence of granting a request to include an animal species in Appendix II of the Decree, anyone wanting to do so may keep an animal species for production purposes.

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<sup>8</sup> In this context 'applicant' refers to 'a stakeholder/interested party'.



The Council places a high value on the prudent application of the assessment framework, in which practical experience in the Dutch situation plays a crucial role. Before introducing an animal species as a production animal, the Council recommends that practical experience first be acquired in the Dutch situation on the basis of individual exemptions before potentially adding the particular species to Appendix II. To safeguard animal health and welfare and to minimise the risk of unacceptable constraints, the Council recommends furthermore that specific animal husbandry regulations specified in the Decree should always be attached to the addition of a species to the list of authorised production animals. Where this is not yet the case for the animal species already included in the list, the Council recommends that specific animal husbandry regulations be subsequently drawn up.

### **3.4.3. Deletion of an animal species**

As a consequence of granting a request to delete an animal species from the list of authorised production animals, the relevant animal species may no longer be kept in the Netherlands for production purposes. This decision can be taken if new information becomes available, if technological breakthroughs occur that shed a different light on the assessment or, if due to a shift in social morality, the objective of production no longer outweighs the potential damage to animals, humans and/or the ecosystem.

The Council recommends that a reassessment application for an animal species be facilitated for the purpose of the list of authorised production animals in line with the reassessment applications that may be submitted for animal species on the list of authorised pets. However, constant reassessments must be avoided, also with a view to the business continuity of the animal keepers concerned. The Council recommends applying a validity period of at least five years to the conclusion of an assessment or reassessment, unless there are compelling reasons for reducing that period.

If an animal species is deleted from Appendix II, the Council assumes that a realistic transitional period will always be attached to deleted animal species for existing businesses.

## **3.5. Considerations**

Different types of arguments will usually be used for granting authorisation to use an animal species for production purposes – based either on an exemption or inclusion in the list of authorised production animals – than those for deleting an animal species from the list.

The introduction of an animal species which has not previously been kept for production purposes in Netherlands involves just one or a few businesses at the most that wish to keep the particular animal species as a production animal. At the time the first applications are submitted, the animal species will in principle not yet be kept in the Netherlands production purposes, or if it is only by a few businesses. Macroeconomic arguments and arguments concerning damage to the ecosystem are unlikely to play a significant role in the assessment for one or just a few businesses, but rather will relate to larger numbers of animals or businesses.

In the event an animal species or animal category already included in the list of authorised production animals is deleted from the list, in a number of cases this will

affect a sector which represents an economic value that will cease to exist if the animal species may no longer be kept. The violation of the animal keeper's right of ownership, being able to run and take decisions about their farm independently (autonomy) and the justification of the requirements relevant to the public interest versus the protection of the animal keeper's fundamental rights (fair balance) play a significant role in such cases. This will customarily be reflected in discussions on compensation and the phase-out period. The decision to delete an animal species from the list of authorised production animals essentially prohibits activities which until that time had been permitted by law.

Moreover the Council has observed that animals are increasingly being used for other products and services of an increasingly commercial nature. This relates, for instance, to activities and procedures in which animals have a supporting or assisting role in health care, and in research and education. The Decree does not currently cover such aspects because its scope is limited to designating animal species that may be kept for production purposes. The Council therefore recommends that the assessment framework be used not only for production animals as defined in the Decree, but also for all animals used commercially for providing products and services to people.

In short: In essence, the assessment framework can be applied in the same way for both adding animal species to and deleting them from Appendix II, although the arguments for adding and deleting them may differ. The assessment framework presented aims to clearly set out the facts, analysis and values based on which an animal species will be included or deleted. This assessment should be performed both for the production animals defined in the Decree and animals that provide other products and services. Whether a business commercially produces pigs or puppies makes no difference where the assessment framework is concerned. The Council considers it equally important that decision-making on the use of animal species for production purposes proceeds in a prudent, transparent and consistent manner.

*"All animals are equal but some animals are more equal than others"*

## 4. Assessment framework

### 4.1. Three steps

The Council has taken as a starting point that the list of authorised production animals should be compiled according to species/sub-species (stating 'domesticated form', where necessary). To assess whether to add an animal species to or delete it from the list of authorised production animals, in this chapter we have set out a proposed methodology consisting of three steps.

#### *Step 1: Gathering information*

This step entails gathering information on the consequences of keeping the animal species for production purposes concerning the following three aspects: the animal, humans and the ecosystem. It comprises factual information about the animal species and the envisaged husbandry conditions. In addition, information should be collected on the economic, commercial, ecological and public health aspects. Where a certain aspect is not deemed relevant, the reasons must be substantiated.

#### *Step 2: Analysis*

Based on the factual information collected under step 1, the potential constraints for the animal's welfare, including its health, are analysed using the same methodology as the list of authorised pets. Furthermore, the potential risks for public health and the ecosystem are assessed. If the information collected during step 1 is limited, further information will need to be supplied first.

Lastly, the measures the applicant plans to take to minimise the risk of the identified constraints are examined. This analysis serves as a basis for formulating any animal husbandry regulations and management measures.

#### *Step 3: Assessment*

During the final step the various arguments for authorising or, conversely, refusing an animal species as a production animal are weighed based on the values described in the advisory report on 'One Health' (RDA, 2016). This will serve as a basis for deciding which arguments are deemed decisive in authorising or, conversely, refusing the use of an animal species for production purposes.

The following paragraphs explain the information required, by whom it should be submitted, the questions that should be answered and by whom, and who the assessor might be.

### 4.2. Step 1: Gathering information

#### 1) Animal

General	Species
	Breed

<b>Biological characteristics<sup>9</sup> (descriptive, as the guiding principle for accommodation and care)</b>		
1	Environment: the degree to which an animal moves naturally and the manner in which the animal lives naturally in a specific environment.	
2	Size: the average size of the animal when it reaches maturity.	
3	Activity: the degree to which the animal alternates periods of activity with periods of inactivity throughout a day or season.	
4	Food and foraging: the degree to which and the manner in which an animal forages and eats naturally, including the composition of the ration eaten.	
5	Safety: the degree to which the animal seeks safety naturally and uses a place of shelter.	
6	Reproduction: the manner in which the animal reproduces naturally and raises young.	
7	Hygiene and comfort: the degree to which and the manner in which the animal displays natural cleaning and comfort behaviours.	
8	Social behaviour: the manner in which the animal lives together naturally with the same or other animal species and maintains social relations with them.	
9	Diversion and playful behaviour: the degree to which the animal responds to stimuli and diversion.	
10	Diseases: the manner in which the animal naturally resists pathogens.	

<b>Husbandry system<sup>10</sup></b>		
<b>Accommodation (inside and outside)</b>	1 <sup>11</sup>	Environment: a) walls, floor and ground, b) lighting, ventilation and heating, c) fencing and shelter
	2	Size: dimensions, construction and design
	5	Safety: rest and shelter facilities
	7	Hygiene and comfort: possibility for cleaning and comfort behaviours
	8	Social behaviour: individual/group accommodation, the number of animals kept in a group, occupancy density, when and at what moment does the animal have contact with the other animals in the accommodation
<b>Care and feeding</b>	3	Activity: rest facilities
	4	Food and foraging: type of feed (incl. proportions for a different type), amount and origin of feed. Feeding method: access to water and feed, when is the animal fed/ when is feed withdrawn, reducing stress during feeding
	9	Diversion and playful behaviour: environmental enrichment
	10	Diseases: occurring diseases, disease incidence, preventive care, curative care (medicines, etc.), accommodation/isolating sick animals, cleaning and disinfecting the facility

<sup>9</sup> Based on Article 1.4. Animal Husbandry Decree

<sup>10</sup> Based on article 2.2. of the Animals Act

<sup>11</sup> The numbers correspond to the numbers belonging to the section on biological characteristics.

	-	Procedures performed on the animal: interventions, biotechnological and other procedures
<b>Breeding</b>	6	Reproduction: possibilities and mode of reproduction, supply of starting material (possibly incl. wild captive animals), dealing with offspring, surplus animals

<b>Transport (supply and disposal)</b>		Means of transport: type of transport, occupancy density, distance and duration
<b>Killing animals</b>		Manner of killing: method <sup>12</sup>

## 2) Human

<b>Business information</b>	Experiences of husbandry elsewhere
	Purpose of production
	Quantity and quality of production
	Production process
	Production cycle
	Expertise and professional competence of staff and suppliers
	Supervision and inspection
	Business advisory services
	Required equipment
	Surgical interventions and examinations (including registration of medical care and death)
	Administrative records: origin, destination or relocation of animals

<b>Economic information</b>	Size of business (number of animals to be kept)
	Annual sales revenue*
	Production volume
	% GNP (Gross National Product)*
	Number of employees
	Number of establishments

\*Not applicable to an individual business or individual applicant

<b>Public health</b>	Risk of escaping from the premises
	Risk of injury (such as personal injury)
	Zoonoses
	Nuisance (noise, smell)
	Food safety
	Preventing the spread of diseases

## 3) Ecosystem

This could be at local, regional and national level.

<sup>12</sup> In accordance with the applicable laws and regulations: Article 5.1 Animal Husbandry Decree and EU Regulation 1099/2009. If there are no specific regulations for the animal species, it must be demonstrated that during the process of killing animals and the associated activities, animals will be spared from any avoidable form of pain, distress and suffering (paragraph 1.3, Animal Husbandry Decree).

<b>Local environment</b>	Emissions: such as manure, ammonia, greenhouse gases
	Energy consumption
	Water consumption and pollution
	Soil quality
	Air quality
	Biodiversity and plant health
	Landscape architecture
	Risk of invasiveness (pests) and escaping from the premises

**Output parameters**

<b>General output parameters</b>	General physiological parameters
	Condition (body condition score)
	Normal and abnormal behaviour
	Self-injury behaviour/animal injuries
	Appetite
	Reproduction
	Growth
	Mortality
	Morbidity

**Who will supply the information?**  
The applicant

**What questions will be answered?**

- Is the information complete?
- Is the information of sufficient quality?

**Who will answer the question?**  
The answer will be based on an 'expert evaluation', from an assessment committee for instance.

**4.3. Step 2: Analysis**

	<b>Focus areas</b>	<b>Applicant business</b>	<b>Measure/animal husbandry regulations</b>
<b>Accommodation</b>			
<b>Care and feeding</b>			
<b>Breeding</b>			
<b>Transportation and killing</b>			
<b>Public health</b>			
<b>Ecosystem</b>			

**Who will supply the information?**

The first analysis will be performed by the applicant supplemented with an analysis based on an expert evaluation.

**What questions will be answered?**

- Can the applicable legislation be complied with?
- To what extent will health, welfare and integrity be damaged? How serious are any welfare problems? If health and welfare are damaged, are there sufficient options for managing the commercial farming of the relevant animal species to minimise the risk of animal health and/or welfare problems?
- Are there any risks to public health and the ecosystem that should be taken into account? If so, are there sufficient possibilities for managing and minimising those risks?

**Who will answer the question?**

The answer will be based on an 'expert evaluation', from an assessment committee for instance.

#### 4.4. *Step 3: Arguments and assessment*

Arguments relate to the entire production chain, including breeding, animal husbandry conditions, transport and killing.

The legislative framework is stated first. It can directly affect the possible courses of action. The legislative framework does not refer to Appendix II to the Decree, which is due to be amended.

The above values are explained in the Appendix. Further details of the value 'welfare' are provided in the above box under the 'Animal' section.

		<i>Weighting</i>		
<i>Domain</i>	<i>Value</i>	<i>Heavy</i>	<i>Medium</i>	<i>Light</i>
	<i>Legislative framework</i>			
<i>Animal</i>	<i>Animal welfare (see definition)</i>			
	<i>Animal health</i>			
	<i>Animal integrity (including interventions)</i>			
<i>Human and Ecosystem</i>	<i>Public health</i>			
	<i>Public opinion and social impact</i>			
	<i>Economic value</i>			
	<i>Production objective ('instrumental value')</i>			
	<i>Cultural and relational value</i>			
	<i>Inherent dignity and worth, and autonomy</i>			
	<i>Pollution (e.g. emissions, energy,</i>			

	<i>and soil, water and air quality)</i>			
	<i>Biodiversity</i>			
	<i>Landscape</i>			
	<i>Health of the animal population</i>			

**Who will supply the information?**

Information for the facts and arguments will be derived from the two preceding steps. Arguments arising from the social context will also be considered.

**What questions will be answered?**

- What are the pros and cons of authorising or prohibiting the keeping of an animal species for production purposes? What weighting is assigned to these arguments?
- Do the possible benefits outweigh the risk of costs for the animal, public health and the ecosystem?

**Who will answer the question?**

The Minister decides on the basis of which arguments an animal species will be granted an exemption or will be added to or deleted from Appendix II of the Decree.

In the event an animal species is added to or deleted from Appendix II, the usual preliminary scrutiny procedure for a change in the law will be followed.



## 5. Conclusions and recommendations

The Council considers it vital that during the process of granting or refusing authorisation to use an animal species as a production animal, a prudent, transparent and consistent assessment be made in which sufficient consideration is given to all the relevant values. This similarly applies to deleting an animal from the list of authorised production animals. This assessment can be made with the aid of the assessment framework presented. In essence, the assessment framework can be applied in the same way for both adding animal species to and deleting them from Appendix II, although the arguments for adding and deleting animal species may differ. It would be advisable to evaluate the framework regularly to keep it current.

To achieve this, the Council has formulated the following recommendations:

1. Establish a link between the list of authorised pets (*'huisdierenlijst'*) and the list of authorised production animals (*'productiedierenlijst'*). Before answering the question 'can this animal species be kept for production purposes?', the primary question 'can this animal species be kept?' must first be answered in the affirmative.
2. Should there be multiple, fundamentally different husbandry systems or production objectives for an animal species, the Council recommends that each system or objective be separately assessed.
3. In authorising an animal species which has not previously been used for production purposes in the Netherlands, the Council recommends that this always initially be carried out – after a comprehensive assessment – on the basis of individual exemptions. Husbandry conditions must be attached to the exemption to safeguard the relevant animals' welfare. Moreover, conditions can be imposed to register additional animal-related data (output parameters) for the purpose of any follow-up assessments.
4. The addition of an animal species to the list of authorised production animals should always be coupled with specific animal husbandry regulations which are embedded in the designated decree. Where this is not yet the case for the currently designated animal species, the Council recommends that specific animal husbandry regulations for these animals be subsequently incorporated.
5. Facilitate reassessment applications for animal species designated for production purposes. In this regard, stability must be ensured by applying at least a five-year validity period to the conclusion of an assessment or reassessment.
6. Apply the assessment framework not only to the production animals defined in the decree, but also to animal species that produce different types of products or services for commercial purposes.

### *Other recommendations*

At the time an exemption is granted for keeping an animal species or animal category for production purposes, or an animal species or animal category is added to or deleted from Appendix II of the Decree, a file will be available containing the facts and arguments

based on which authorisation for keeping the relevant animal species has been granted or refused.

However, animal species which are included in the current Appendix II of the Decree have not been assessed on the basis an assessment framework. The Council recommends that a subsequent assessment be carried out so that a file can be created for all animal species kept in the Netherlands for production purposes.

Files will moreover facilitate and simplify the reassessment procedure. If a file exists, the applicant will only need to indicate in which areas the information has changed to such an extent that a reassessment will need to take place. This will ensure that a reassessment will be performed in a prudent and consistent manner.

7. Assess all animal species listed in Appendix II of the Decree with the aid of this assessment framework and record the findings in a file.

The Netherlands Enterprise Agency (RVO) publishes the exemptions issued on the basis of the Decree on its website. Following on from the above, the Council recommends that in addition to the exemptions granted, insight be provided into the facts, analyses and arguments based on which an animal species may or may not be kept for production purposes. Insight could, for instance, be provided by publishing the files referred to in recommendation 7 on each animal species. Needless to say, specific, sensitive business information should be excluded.

8. Ensure that the facts, analyses and values, based on which a decision is taken on whether or not to keep an animal for production purposes, are clear and comprehensible.

This will make it clear to everyone on the basis of which arguments a specific animal species may be kept for production purposes.

In conclusion, the Council wishes to point out that the assessment framework can be adjusted in line with new insights based on the availability of newly acquired knowledge and experience.

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## Appendix: One Health: values to be evaluated

The assessment framework provides a series of relevant values to be taken into consideration when making an assessment according to the One Health principle. The values are explained below and supplemented with some relevant questions to make everything more concrete. The legislative framework is listed first, because there are certain prohibitions under the law that can effectively make a specific course of action impossible. The aspect 'health of individual humans' is classified under the value 'welfare', in accordance with other RDA advisory reports. The other values are arranged in alphabetical order.

### Legislative framework

*Human, animal and ecosystem domains*

Rights and obligations according to the laws and rules applicable in the Netherlands, as well as their implementation and enforcement. For the human, animal and ecosystem domains, the Public Health Act (*Wet publieke gezondheid*), the Animals Act (*Wet dieren*) and the Nature Conservation Act (*Wet natuurbescherming*) are of particular importance.

- *What legal framework applies to a particular issue?*
- *What scope does the legislative framework offer?*

### Autonomy

*Human domain*

Autonomy refers to the fact that people have a right to their own possessions and can take decisions independently. Sometimes this freedom is restricted by a government decision, for instance, when the transport of animals or goods is restricted in the event of a standstill or when a farm's animals have to be culled.

- *What effect does taking a particular decision have on the autonomy of humans?*

### Biodiversity

*Animal and ecosystem domains*

This concerns the variation within and between types of organisms in the ecosystem. For example, by deciding to cull rare or special animals, certain genes of that population of animals could be lost, resulting in less biodiversity. Contaminating an ecosystem could threaten the existence of a biological species, adversely affecting biodiversity.

- *What effect can taking a particular decision have on the biodiversity of animals?*
- *What effect can taking a particular decision have on biodiversity in the ecosystem?*

### Cultural value

*Human, animal and ecosystem domains*

Cultural value relates to the habits and opinions of humans based on their cultural background. The value humans place on animals or the ecosystem is based partly on their cultural background, including their religion.

- *What role do animals play in different cultures?*
- *What role does the ecosystem play in different cultures?*
- *What effect can taking a particular decision have on cultural values?*

### Economic value

*Human, animal and ecosystem domains*

Making a cost-benefit analysis forms part of the decision-making process. Negative effects to reputation and damage play a role under 'costs,' as does the possible loss of income caused, for example, by the loss of many years of genetic progress through culling. The equality or inequality of a commercial position and commercial interests in imports and exports can play a role too, along with the costs of medical treatment for animals or humans. There can also be 'benefits' to a particular course of action: costs saved or direct revenue. Costs and benefits can end up in different domains independently of one another: one domain is saddled with the costs while another domain benefits. Finally, the ecosystem has an economic value that has to be weighed up.

- *What decision is preferable from an economic viewpoint?*
- *What does a particular decision mean for the commercial position of the Netherlands?*
- *What decision is the most sustainable in the long term from an economic viewpoint?*
- *How can the economic value of the ecosystem be expressed?*

### **Health of the animal population**

#### *Animal and ecosystem domains*

This value relates to the health of animals at population level and occurs in the overlap between the animal and ecosystem domain. There are several reasons for this classification: firstly it concerns both farmed and non-farmed animals, secondly the health of these different populations can influence one another (with respect to infectious contagious diseases such as avian flu or swine fever) and thirdly, they both have an effect on the ecosystem and vice versa. Factors that have an effect on the health of a population of farmed animals include vaccination, housing and habitat, food and veterinary care. In the case of infectious animal diseases, the way in which they are transmitted, the morbidity, the mortality, the risk, the severity and the duration of the disease play a role in the health of the population. Here, risk means the likelihood of a particular situation arising multiplied by the consequences of such a situation. The health of a population of animals is sometimes directly related to public health, in terms of zoonoses – and their epidemiology – and of food safety. Animal health can also have implications for commerce and commercial interests. In specific cases, the Dutch Government will have to decide whether or not to take action, and in the former case alternatives will have to be weighed up against each other.

- *What is the epidemiology (means of transmission, morbidity, mortality, risk, severity and duration) of an infectious animal disease?*
- *How high is the risk to the health of animal populations on the basis of this epidemiology?*

### **Inherent dignity and worth**

#### *Human domain*

This relates to human dignity and worth as set out in the fundamental principle of the Universal Declaration of Human Rights.

- *What impact does a particular decision have on human dignity, worth and autonomy?*
- *What influence does a particular disorder have on the way people function?*

### **Instrumental value**

#### *Animal and ecosystem domains*

The value of an animal or the ecosystem in the service of human goals. People can assign different instrumental values to the same animal or ecosystem. For instance, the instrumental value of a pair of animals is different for a cattle farmer than for the rest of society.

- *What instrumental value does an animal or a group of animals have, and for whom?*
- *What instrumental value does the ecosystem have, and for whom?*

### **Intrinsic value**

#### *Animal and ecosystem domains*

This is the value that an animal has 'in itself', apart from the functional value that it has to humans. Both farmed and non-farmed animals have an intrinsic value. The intrinsic value of the ecosystem covers the green and the grey environment, in other words nature and flora and fauna as well as air and water quality. The health of an individual tree or even an entire forest comes under intrinsic value too.

- *What effect does a particular decision have on the intrinsic value of an animal?*
- *What effect does a particular decision have on the intrinsic value of the ecosystem?*

### **Landscape architecture**

#### *Human and ecosystem domains*

The architecture of the landscape affects both humans and the ecosystem: ecoducts, urban ecology and designing areas according to the use of the soil, for example. Landscape architecture affects the health of animals and humans through the role and transmission patterns of non-farmed animals and possibly of other vectors in the case of infectious diseases.

- *What effect does a particular landscape architecture have on humans?*
- *What effect does a particular landscape architecture have on the ecosystem?*

### **Social impact**

#### *Human domain*

The consequences of a particular occurrence or decision for society and the extent to which they correspond to perceived moral values in society. Social impact is closely connected to cultural value and public opinion, but is not identical to them. Taking a decision in accordance with the One Health approach can have a particular impact on a person, a group of people or the whole of the Dutch population.

- *What social impact is a particular decision likely to have?*

### **Public opinion**

#### *Human domain*

Public opinion is a prevailing widely-held opinion that is based on perceived social values. Out of respect for the autonomy of private individuals, the government acknowledges that public opinion should be seen and taken into account as a relevant factor in the decision-making process. Various parties, including the media, play a role in disseminating as well as in influencing public opinion. There is a close correlation with cultural value: the value that people assign subjectively to a particular animal or animal species or to the ecosystem influences public opinion.

- *What is the public opinion on the topic on which a decision is to be taken?*
- *What role do parties such as the media play in influencing public opinion?*
- *How high is the perception of a particular risk to public health?*

## **Relational value**

### *Human, animal and ecosystem domains*

Here, relationship means the emotional ties of an individual with other people, with an animal or animals or with the ecosystem. An owner can be attached to his animals or to a particular place, such as a forest. Interactions between people count here too, for example social interaction when walking with a pet, or interactions between cattle farmers (and their family) and the rest of society.

- *What effect does a particular decision have on the relationship between people?*
- *What effect does a particular decision have on the relationship between a livestock owner and his animals?*
- *What relational value do people attach to the ecosystem or part of it?*

## **Contamination**

### *Ecosystem domain*

Contamination of the ecosystem by hazardous substances. Examples are greenhouses gases, CO<sub>2</sub> footprint and contamination of soil or ground water. Both the short-term and the long-term effects of a decision form part of the assessment.

- *Does taking a particular decision lead to contamination of the ecosystem?*
- *What are the short-term and the long-term effects of a decision on contamination of the ecosystem?*

## **Public health**

### *Human domain*

This relates to all the aspects of the health of the population of the Netherlands at a higher aggregation level, including the social aggregation level. Many factors influence it, such as food security and food safety, as well as the possibility of taking part in sport or relaxing in a recreation area or an area of high ecological value. An infectious animal disease that can be transmitted to humans forms a risk to public health. In assessing that risk, the morbidity, mortality, prevalence, severity and duration of the disease for both humans and animals are important. Here too, risk means the likelihood of occurrence multiplied by the consequences of such a situation. The movement of people and goods has an influence on public health because it can contribute to spreading vectors or diseases. People who come into contact with animals professionally run a high risk, but are in principle aware of it: butchers, cattle farmers and vets for instance. There are also people who are unaware of the risk or run an involuntary risk of infection, such as local residents, passers-by and persons involved by chance, as well as people who run a risk – involuntarily or otherwise – by taking particular actions or buying particular products. Within all those groups there are people with a weakened immune system, including children, the elderly, pregnant women and people who are being treated for a chronic illness.

- *What is the epidemiology (means of transmission, morbidity, mortality, risk, severity and duration) of an infectious animal disease?*
- *How high is the risk to public health on the basis of this epidemiology?*
- *How do farmed and non-farmed animals affect public health?*
- *How does the ecosystem affect public health?*

## **Welfare (including health)**

### *Human and animal domains*

The Council on Animal Affairs believes that animals have their own intrinsic value and therefore that animals, as feeling creatures, are entitled to their own welfare. In the Netherlands, the intrinsic value of an animal is regulated by law. According to the definition applied by the Council on Animal Affairs, an individual – human or animal – is in a state of welfare when it can actively adapt to its living conditions and thereby achieve a situation that it considers positive.

- *What significance does a particular decision have for the welfare of the humans concerned?*
- *What significance does a particular decision have for the welfare of the animals concerned?*

The Council sees health as part of welfare. At an individual level, health relates to how humans or animals function within their normal biological limits. They should be in 'a state of complete physical, mental and social well-being', according to the definition of the World Health Organization (WHO). The health of humans and animals may be closely connected. In a negative sense, this is the case with a zoonosis, an infectious disease in the animal domain that can also cause problems for humans. Keeping an animal can also have a positive influence on the development of children or on human health (for instance because they get more exercise by walking a pet).

- *What effect does a decision have on the health of individual humans?*
- *What effect does a decision have on the health of individual animals?*
- *How and to what extent do the health and welfare of an individual human and an individual animal influence each other?*



## Credits

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The draft advisory report was submitted to the full Council. Consequently, this advisory report is a product of the full Council.

The Council on Animal Affairs consisted of the following members effective 1 March 2016:

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