

**WORK PROGRAMME FOR  
THE TERRESTRIAL ANIMAL HEALTH STANDARDS COMMISSION**

<b>NORWAY</b>	<p><b>General:</b></p> <p>Norway appreciates the Code Commission’s ongoing commitment to prioritizing its substantial work program, in collaboration with other relevant specialist commissions. We express gratitude for considering previously submitted comments. Furthermore, we wholeheartedly endorse the updated work program and its prioritization.</p>
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Chapter	Issues	Summary of the work	Status - February 2024		Priority order *
			Stage of consideration	Remarks (Month when draft text first circulated for comment /# of rounds for comment) or last TAHSC report reference	
<b>General</b>	Wildlife Health	Overarching consideration on how wildlife animal health is addressed in the <i>Terrestrial Code</i>	Preliminary discussions	Noted in Feb 2024 TAHSC report	2
	New chapter on emergency management	Develop a new chapter and potentially modify the existing chapters	Expert consultation	Noted in Feb 2024 TAHSC report	3
	Commodities	Consideration to determine whether several types of highly processed products (such as blood meal, dried plasma, rendered fats, and hydrolysed protein) have a globally standardised production process and meet criteria to be	Preparatory work	Noted in Feb 2024 TAHSC report	2

		considered safe commodities as regards specific diseases.			
	Pet-food commodities	Consider the inclusion of 'extruded dry pet food' and 'heat-treated meat products in a hermetically sealed container with an F0 value of 3 or above' in the list of safe commodities of chapters (when revised).	Preparatory work	Refer to Sep 2022 TASHC report	2
		In Chapter 15.1. Infection with African swine fever virus	Proposed for adoption in May 2024	Noted in Feb 2024 TASHC report (Sep 2023/1)	1
<b>Use of terms</b>	Use of terms: animal health status	<ul style="list-style-type: none"> <li>- Consider the need to revise definition to incorporate 'herd', and avoid restrictive wording</li> <li>- Possible revision of the Glossary definition</li> <li>- Review use of the terms across the <i>Code</i> for consistency</li> <li>-</li> </ul>	Preparatory work	Refer to Feb 2020 TAHSC report	1
	Use of terms: animal-based measures / measurables	Review use of the terms across the <i>Code</i> for consistency Develop a policy for their use	Circulated for comments (proposed for adoption in May 2024)	Noted in Feb 2024 TAHSC report	2
	Use of terms: notify / notifiable disease / report / reportable disease	Review use of the terms across the <i>Code</i> for consistency. Develop a policy for their use	Preparatory work	Refer to Feb 2019 TAHSC report	2
	Use of terms: Competent Authority / Veterinary Authority / Veterinary Services	Review use of the terms across the <i>Code</i> for consistency	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Feb 2023/2)	1
<b>User's guide</b>	Revision of the Users' guide (standing item)	Partial revision <ul style="list-style-type: none"> <li>- to provide more explanation on disease-specific chapters</li> </ul>	Circulated for comments and work in parallel	Noted in Feb 2024 TAHSC report (Sep 2023/2)	1

		<ul style="list-style-type: none"> <li>- to develop a new point on terms referring to animals used in the <i>Terrestrial Code</i></li> <li>- work on introduction</li> </ul>			
<b>Glossary</b>	'Death', 'euthanasia', 'slaughter' and 'stunning'	In-depth revision in relation to work on Chs 7.5.-7.6.	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2019/4)	1
	'Artificial insemination centre'	Change the term to 'semen collection centre'	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
	New definitions for 'animal products', 'product of animal origin' and 'animal by-product'	Review use of the terms across the <i>Code</i> for consistency. Develop a policy for their use and draft definitions.	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Feb 2023/2)	1
	New definition for 'biological products'	Develop a new definition	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
	New definition for 'swill'	Review use of the term across the <i>Code</i> . Develop a policy for its use and consider developing a definition. (connected to biosecurity work)	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
	Definitions for 'biosecurity' and 'biosecurity plan'	Review as a part of the work on new Chapter on Biosecurity	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
	New definition for 'point of exit' and definitions for 'border post' and 'quarantine station'	Review as a part of the work to revise Chs 5.4. to 5.7.	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
	New definition for 'veterinary medical use'	Move the definition from Ch 6.9.	Pending adoption of Ch 6.10.	Noted in Sep 2023 TAHSC report	3
	Definition of 'poultry'	(Not defined yet, related to revision of chapters in Section 10)	Not started	Noted in Feb 2024 TAHSC report	2
	Definition for 'greaves'	Deletion of the definition	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1

	Definition for 'disinfection'	Revision of definition	Expert consultation	Noted in Feb 2024 TAHSC report	2
	New definition for 'pathogenic agent'	Develop a new definition	Expert consultation	Noted in Feb 2024 TAHSC report	2
	Definition for 'laboratory'	Revision of definition	Expert consultation	Noted in Feb 2024 TAHSC report	2
	New definition for 'isolation'	Develop a new definition	Expert consultation	Noted in Feb 2024 TAHSC report	2
	New definition for 'suspected case'	Develop a new definition	Expert consultation	Noted in Feb 2024 TAHSC report	
<b>Section 1</b>					
<b>1.3.</b>	Diseases, infections and infestations listed by WOA	Revision to reorder the articles (animal categories), to clarify animal categories in each article, to reorder the diseases in each article, and to align some disease names with the corresponding disease-specific chapters	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
<b>1.6.</b>	Procedures for official recognition of animal health status, endorsement of an official control programme, and publication of a self-declaration of animal health status, by WOA	Partial revision to improve clarity on the ability for Members to hold pathogenic agents within laboratories without affecting their animal health status	Expert consultation	Noted in Feb 2024 TAHSC report (Feb 2023/1)	2
<b>1.11.</b>	Application for official recognition by WOA of free status for foot and mouth disease	Partial revision to align with the revised Ch 8.8.	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
<b>Section 4</b>					
<b>4.4.</b>	Zoning and compartmentalisation	To address necessary points, as relevant, with the development of new Ch 4.4.	Preparatory work	Noted in February 2024 TAHSC report	1

4.Y	New Chapter on implementation of zoning.	Develop a full new chapter. Taskforce by SCAD and TAHSC to work on this issue	Preparatory work	Noted in February 2024 TAHSC report	
4.6.	Collection and processing of semen of animals	Comprehensive revision of chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2022/3)	1
4.7.	Collection and processing of bovine, small ruminant and porcine semen	Comprehensive revision of chapter	Preparatory work	Refer to Feb 2024 TAHSC report Pending progress of the work on Ch 4.6.	1
4.8.	Collection and processing of <i>in vivo</i> derived embryos from livestock and equids	Consider potential amendments as a consequence of the changes in the IETS Manual	Preparatory work	Pending progress of data collection	2
4.9.	Collection and processing of oocytes and <i>in vitro</i> produced embryos from livestock and horses	Consider potential amendments as a consequence of the changes in the IETS Manual	Preparatory work	Pending progress of data collection	2
4.13.	Disposal of dead animals	Consider including all potentially contaminated wastes/products/fomites	Preparatory work	Refer to Feb 2022 TAHSC report	2
4.14.	General recommendations on disinfection and disinsection	Comprehensive revision of chapter Consider question from AHG on biosecurity	Preparatory work	Refer to Feb 2022 TAHSC report	2
4.X.	New chapter on biosecurity	Develop a new chapter	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
<b>Section 5</b>					
<b>General</b>	Revision of Section 5 Trade measures, import/export procedures and veterinary certification (especially Chs 5.4. to 5.7.)	Comprehensive revision of Chs 5.4., 5.5., 5.6. and 5.7.	Expert consultation (	Noted in Feb 2024 TAHSC report (Sep 2023/1 - for Chs 5.4. and 5.6.)	1
<b>5.2., 5.10.</b>	Certification procedures	Partial revision to review provisions on electronic certification and check model of certificate	Expert consultation	Refer to Sep 2022 TAHSC report	2

5.8.	International transfer and laboratory containment of animal pathogenic agents	<ul style="list-style-type: none"> <li>- Consider impact of holding PA in labs (and research facilities)</li> <li>- Align with corresponding <i>Manual</i> chapter (categories of PA)</li> <li>- Link with work with Nagoya protocol?</li> </ul>	Expert consultation (depending Ch 1.6., etc.)	Noted in Sep 2023 TAHSC report	4
5.12.	Model passport for international movement of competition horses	Update the relevant chapters on equine diseases to take into account proposals made by the AHG on HHP Horses Veterinary Certificates	Preparatory work	Noted in Sep 2023 TAHSC report	2
<b>Section 6</b>					
6.2.	The role of the Veterinary Services in food safety systems	Review the chapter based on the revised Glossary definitions for 'CA', 'VA' and 'VS'	Preparatory work	Refer to Sep 2022 TAHSC report	4
6.3.	Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection	Revision to avoid duplication with Ch 6.2., to simplify and to refer to relevant Codex GLs more	Not started	-	4
6.10.	Responsible and prudent use of antimicrobial agents in veterinary medicine	Comprehensive revision of chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2022/2)	1
6.12.	Zoonoses transmissible from non-human primates	Consider possible inclusion of SARS-CoV-2 in this chapter, possible inclusion of Macacine Herpesvirus 1 and the revision of test schedule and animal species to be tested for tuberculosis (Origin Member requests)	Not started	Refer to Feb 2022 TAHSC report	4
<b>Section 7</b>					
7.1.	Introduction to the recommendations for animal welfare	Partial revision <ul style="list-style-type: none"> <li>- to include 'five domains' concept</li> </ul>	Circulated for comments	Noted in Feb 2024 TAHSC report (Sep 2023/2)	1

		- to clarify the meaning of the terms 'animal-based', 'resource-based' and 'management-based' measures etc.			
<b>7.2., 7.3., 7.4.</b>	Transport of animals by land, sea and air	Comprehensive revision of chapters	Expert consultation	Noted in Feb 2024 TAHSC report	1
<b>7.5.</b>	Slaughter of animals	Comprehensive revision of chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Feb 2021/3)	1
<b>7.6.</b>	Killing of animals for disease control purposes	- Partial revision - Comprehensive revision of chapter	- Partial revision: circulated for comments - Comprehensive revision: Expert consultation	Refer to Sep 2022 TAHSC report	2
<b>Section 8</b>					
<b>8.7.</b>	Infection with epizootic hemorrhagic disease virus	Comprehensive revision of chapter	Not started	Noted in Feb 2024 TAHSC report	3
<b>8.8.</b>	Infection with foot and mouth disease virus	Comprehensive revision of chapter (including harmonisation of chapters with official status recognition)	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2015/6)	1
<b>8.10.</b>	Japanese encephalitis	Comprehensive revision of chapter (related to works on Chs 8.21., 12.4. and 12.11.)	Expert consultation	Noted in Feb 2024 TAHSC report	2
<b>8.11.</b>	Infection with <i>Mycobacterium tuberculosis</i> complex	Partial revision - to add recommendations for camelids and goats - to clarify point 1(b) of Article 8.11.4.	Not started	Refer to Feb 2022 TAHSC report	3

<b>8.13.</b>	New world screwworm and old world screwworm	Partial revision (case definition)	Expert consultation	Noted in Feb 2024 TAHSC report	3
<b>8.14.</b>	Paratuberculosis	Consider amendments to ensure alignment with recently revised <i>Manual</i> chapter	Expert consultation	Refer to Sep 2020 TAHSC report	3
<b>8.15.</b>	Infection with rabies virus	Partial revision - to add recommendations on wildlife-mediated rabies	Preparatory work	Refer to Sep 2022 TAHSC report	3
<b>8.16.</b>	Infection with Rift Valley fever virus	Partial revision of recommendations for importation of semen and embryos (follow-up of update of corresponding <i>Manual</i> chapter adopted in 2023)	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
<b>8.17.</b>	Infection with <i>Trichinella</i> spp.	Partial revision of general provisions (follow-up of update of corresponding <i>Manual</i> chapter adopted in 2023)	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2023/1)	1
<b>8.21.</b>	West Nile fever	Comprehensive revision of chapter (related to works on Chs 8.10., 12.4. and 12.11.)	Expert consultation	Noted in Feb 2024 TAHSC report	2
<b>8.X.</b>	New Chapter on Infection with <i>Coxiella burnetii</i> (Q fever)	Develop a new chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2022/3)	1
<b>8.Y.</b>	New Chapter on Infection with Nipah virus	Develop a new chapter	Circulated for comments	Noted in Feb 2024 TAHSC report (Sep 2023/2)	2
<b>8.Z.</b>	New Chapter on Surra	Develop a new chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Feb 2023/2)	1



Section 10					
<b>General</b>	Overall consideration of Section 10 Aves	Consider approach to risk management recommendations for different production sectors, species, commodities, structure of chapter (following latest adopted HAPI) across different diseases.	Preparatory work	Noted in Sep 2023 TAHSC report	3
<b>10.2.</b>	Avian infectious bronchitis	Review trade articles for clarity.	Preparatory work	Noted in Sep 2023 TAHSC report	3
<b>10.3.</b>	Avian infectious laryngotracheitis	Consider amendments to ensure alignment with recently revised <i>Manual</i> chapter	Not started	Noted in Sep 2023 TAHSC report	3
<b>10.5.</b>	Infection with <i>Mycoplasma gallisepticum</i> (Avian mycoplasmosis)	Full update of the chapter (content and structure) based on the recent update of the <i>Manual</i> Chapter. Consider inclusion of <i>M. synoviae</i> into a single chapter (and listed disease).	Preparatory work	Noted in Sep 2023 TAHSC report	3
<b>10.9.</b>	Infection with Newcastle disease virus	Revision to align with recent revision of Ch 10.4.	Not started	Noted in Sep 2023 TAHSC report	3
<b>10.X.</b>	Infection with avian metapneumovirus	Develop a new chapter	Expert consultation (SCAD)	Noted in Sep 2023 TAHSC report	3
Section 11					
<b>11.5.</b>	Infection with <i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> SC (Contagious bovine pleuropneumonia)	Harmonisation of chapters with official status recognition	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2022/3)	1
<b>11.11.</b>	Trichomonosis	Comprehensive revision of chapter	Not started	Refer to Feb 2022 TAHSC report (Sep 2020/2)	3

11.X.	New Chapter on Infection with bovine pestivirus (bovine viral diarrhoea)	Develop a new chapter	Circulated for comments	Noted in Feb 2024 TAHSC report (Sep 2022/4)	1
<b>Section 12</b>					
12.1.	African horse sickness	Harmonisation of chapters with official status recognition Proposals from AHG on AHS and SCAD	Expert consultation	Noted in Feb 2024 TAHSC report (Sep 2022/3)	1
12.3.	Dourine	Comprehensive revision of chapter	Circulated for comments	Refer to Feb 2024 TAHSC report (Feb 2024/1)	2
12.4.	Equine encephalomyelitis (Eastern and Western)	Comprehensive revision of chapter (related to works on Chs 8.10., 8.21. and 12.11.)	Expert consultation	Noted in Feb 2024 TAHSC report	3
12.11.	Venezuelan equine encephalomyelitis	Comprehensive revision of chapter (related to works on Chs 8.10., 8.21. and 12.4.)	Expert consultation	Noted in Feb 2024 TAHSC report	3
<b>Section 13</b>					
13.2.	Rabbit haemorrhagic disease	Partial revision - to add a case definition (with editorial changes)	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Feb 2023/2)	1
		Comprehensive revision of chapter	Preparatory work	Noted in Sep 2023 TAHSC report	3
<b>Section 14</b>					
14.7.	Infection with peste des petits ruminants virus	Reconsider susceptible animals targeted in the chapter and some articles inconsistency	Preparatory work	Noted in Sep 2023 TAHSC report	3
14.8.	Scrapie	Comprehensive revision of chapter	Expert consultation	Noted in Feb 2024 TAHSC report	2
14.9.	Sheep pox and goat pox	Comprehensive revision of chapter	Expert consultation	Noted in Sep 2023 TAHSC report	3
<b>Section 15</b>					

15.3.	Infection with porcine reproductive and respiratory syndrome virus (Article 15.3.9.)	Partial revision to address a concern that the testing regime in relation to semen collection centres is not sufficient to prevent the introduction of the virus through semen from countries that are not free from PRRS (to be reconsidered after revision of Ch 4.7.)	Not started	Refer to Feb 2018 TAHSC report	4
<b>Section 16</b>					
16.Z.	New Chapter on Camel pox	Develop a new chapter	Proposed for adoption in May 2024	Noted in Feb 2024 TAHSC report (Sep 2022/3)	1
<b>Others</b>					
X.X.	New Chapter on Crimean Congo haemorrhagic fever	Develop a new chapter	Pending adoption of corresponding chapter of <i>Terrestrial Manual</i>	Noted in Feb 2024 TAHSC report	2

* Description of the consequence of priority order	
1	- <b>active work for the TAHSC</b> - <b>to be put forward for next meeting agenda</b>
2	- <b>active work for the TAHSC</b> - <b>to be included in next meeting agenda if time allows, depending on other progress</b>
3	- <b>not immediate work for the TAHSC</b> - <b>needs to progress before consideration for next meeting agenda</b>
4	- <b>not active</b> - <b>not to be immediately started</b>

**List of abbreviations**

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<b>AHG</b>	<b><i>Ad hoc</i> Group</b>
<b>BSC</b>	<b>Biological Standards Commission</b>
<b>Ch</b>	<b>Chapter</b>
<b>HQ</b>	<b>WOAH Headquarters</b>
<b>IETS</b>	<b>International Embryo Technology Society</b>
<b>SCAD</b>	<b>Scientific Commission for Animal Diseases</b>
<b>TAHSC</b>	<b>Terrestrial Animal Health Standard Commission</b>

## USER'S GUIDE

NORWAY	Norway forwards its thanks to the Code Commission for this revision, and support the changes suggested.
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### A. Introduction

- 1) The WOAH *Terrestrial Animal Health Code* (hereafter referred to as the *Terrestrial Code*) establishes standards for the improvement of terrestrial animal health and welfare and veterinary public health worldwide. The purpose of this guide is to advise the Veterinary Authorities of WOAH Member Countries on how to use the *Terrestrial Code*.
- 2) Veterinary Authorities should use the standards in the *Terrestrial Code* to set up measures providing for early detection, internal reporting, notification, control or eradication of pathogenic agents, including zoonotic ones, in terrestrial animals (mammals, birds, reptiles and bees) and preventing their spread via international trade in animals and animal products, while avoiding unjustified sanitary barriers to trade.
- 3) WOAH standards are based on the most recent scientific and technical information. Correctly applied, they protect animal health and welfare and veterinary public health during production and trade in animals and animal products, and in the use of animals.
- 4) The absence of chapters, articles or recommendations on particular pathogenic agents or commodities does not preclude the application of appropriate sanitary measures by the Veterinary Authorities, provided they are based on risk analyses conducted in accordance with the *Terrestrial Code*.
- 5) The year that a chapter was first adopted and the year of its last revision are noted at the end of each chapter.
- 6) The complete text of the *Terrestrial Code* is available on WOAH Web site and individual chapters may be downloaded from: <https://www.woah.org/>.

### B. Terrestrial Code content

- 1) Key terms and expressions used in more than one chapter in the *Terrestrial Code* are defined in the Glossary, in the case where common dictionary definitions are not deemed to be adequate. The reader should be aware of the definitions given in the Glossary when reading and using the *Terrestrial Code*. Defined terms appear in italics. In the on-line version of the *Terrestrial Code*, a hyperlink leads to the relevant definition.
- 2) The term “(under study)” is found in some rare instances, with reference to an article or part of an article. This means that this part of the text has not been adopted by the World Assembly of Delegates and the particular provisions are thus not part of the *Terrestrial Code*.
- 3) The standards in the chapters of Section 1 are designed for the implementation of measures for the diagnosis, surveillance and notification of diseases, infections and infestations. The standards include procedures for notification to WOAH and procedures for the recognition of the animal health status of a country, zone or compartment.
- 4) The standards in Section 2 are designed to guide the importing country in conducting import risk analysis in the absence of WOAH recommendations on particular pathogenic agents or commodities. The importing country should also use these standards to justify import measures which are more stringent than existing WOAH standards.
- 5) The standards in the chapters of Section 3 are designed for the establishment, maintenance and evaluation of Veterinary Services, including veterinary legislation and communication. These standards are intended to assist the Veterinary Services and Veterinary Authority of Member Countries to meet their objectives of improving terrestrial animal health and welfare and veterinary public health, as well as to establish and maintain confidence in their international veterinary certificates.
- 6) The standards in the chapters of Section 4 are designed for the implementation of measures for the prevention and control of pathogenic agents. Measures in this section include animal identification, traceability, zoning, compartmentalisation, disposal

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of dead animals, disinfection, dissection and general hygiene precautions. Some chapters address the specific sanitary measures to be applied for the collection and processing of semen and embryos of animals.

- 7) The standards in the chapters of Section 5 are designed for the implementation of general sanitary measures for trade. They address veterinary certification and the measures applicable by the exporting, transit and importing countries. A range of model veterinary certificates is provided to facilitate consistent documentation in international trade.
- 8) The standards in the chapters of Section 6 are designed for the implementation of preventive measures in animal production systems. These measures are intended to assist Member Countries in meeting their veterinary public health objectives. They include ante- and post-mortem inspection, control of hazards in feed, biosecurity at the animal production level, and the control of antimicrobial resistance in animals.
- 9) The standards in the chapters of Section 7 are designed for the implementation of animal welfare measures. The standards cover production, transport, and slaughter or killing, as well as the animal welfare aspects of free-roaming dog population control and the use of animals in research and education.
- 10) The standards in each of the chapters of Sections 8 to 16, i.e. disease-specific chapters, are designed mainly to prevent the pathogenic agents of WOA listed diseases, ~~infections or infestations~~ from being introduced into an importing country or from spreading within a country. Some chapters include specific measures to prevent and control the infections of global concern. Sections 8 to 16 each relate to the host species of the pathogenic agent: multiple species or species of Apinae, Aves, Bovinae, Equidae, Leporidae, Caprinae, Suidae and Camelidae. Although WOA aims to include a chapter for each WOA listed disease, not all WOA listed diseases have been covered yet by a specific chapter. This is work in progress, depending on available scientific knowledge and the priorities set by the World Assembly of Delegates.

~~The standards take into account the nature of the traded commodity, the animal health status of the exporting country, zone or compartment, and the risk measures applicable to each commodity.~~

A disease-specific chapter covers some or all of the following components:

- Chapter title and number;
- Article on general provisions, including definitions of the disease and the animal hosts that play a significant role in the epidemiology of the disease, and definition of its occurrence ('case definition'), and the animal hosts that play a significant role in the epidemiology of the disease;
- Article on safe commodities;
- Articles on provisions for animal health status applied to countries, zones, compartments or herds/flocks;
- Articles on recommendations for safe trade of commodities;
- Articles on inactivation of the pathogenic agents present in specific animal products, materials or fomites; and
- Articles on surveillance of the disease.

Not all disease-specific chapters include all these components and some chapters may include only one the first article on the definition of occurrence for the purpose of notification to WOA. Each chapter includes only those provisions considered, at the time of adoption, relevant to address WOA Members' needs with regards to the specific disease; and that are supported by sound scientific and technical knowledge.

The recommendations in these chapters that are related to international trade. These standards assume that the pathogenic agent is either not present in the importing country or is the subject of a control or eradication programme. Sections 8 to 16 each relate to the host species of the pathogenic agent: multiple species or species of Apinae, Aves, Bovinae, Equidae, Leporidae, Caprinae, Suidae and Camelidae. Some chapters include specific measures to prevent and control the infections of global concern. Although WOA aims to include a chapter for each WOA listed disease, not all WOA listed diseases have been covered yet by a specific chapter. This is work in progress, depending on available scientific knowledge and the priorities set by the World Assembly of Delegates. The sanitary measures recommended in the standards take into account the nature of the moved or traded commodity, the animal health status of the exporting country, zone or compartment of origin, and the risk mitigation measures applicable to each commodity.

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## C. Specific issues

### 1) Notification

Chapter 1.1. describes Member Countries' obligations under Organic Statutes of the Office International des Epizooties. Listed and emerging diseases, as prescribed in Chapter 1.1., are compulsorily notifiable. Member Countries are encouraged to also provide information to WOAAH on other animal health events of epidemiological significance.

Chapter 1.2. describes the criteria for the inclusion of an infection or infestation in the WOAAH List and Chapter 1.3. gives the current list. Diseases are divided into nine categories based on the host species of the aetiological agents.

### 2) Diagnostic tests and vaccines

It is recommended that specified diagnostic tests and vaccines in *Terrestrial Code* chapters be used with a reference to the relevant section in the *WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (hereafter referred to as the *Terrestrial Manual*). Experts responsible for facilities used for disease diagnosis and vaccine production should be fully conversant with the standards in the *Terrestrial Manual*.

### 3) Freedom from a disease, infection or infestation

Article 1.4.6. provides general principles for declaring a country or zone free from a disease, infection or infestation. This article applies when there are no and may be complemented by specific requirements in the listed disease-specific chapters.

### 4) Prevention and control

Chapters 4.4. and 4.5. describe the measures that should be implemented to establish zones and compartments. Zoning and compartmentalisation should be considered as some of the tools used to control diseases and to facilitate safe trade.

Chapters 4.6. to 4.12. describe the measures which should be implemented during collection and processing of semen and embryos of animals, including micromanipulation and cloning, in order to prevent animal health risks, especially when trading these commodities. Although the measures relate principally to WOAAH listed diseases or infections, general standards apply to all infectious disease risks. Moreover, in Chapter 4.8. diseases that are not listed are marked as such but are included for the information of Member Countries.

Chapter 4.15. addresses the specific issue of the control of bee diseases and some of its trade implications. This chapter should be read in conjunction with the specific bee disease chapters in Section 9.

Chapter 6.5. is designed for the implementation of general biosecurity measures in intensive poultry production. Chapters 6.6., 6.13. and 6.14. provide recommendations for some specific on-farm prevention and control plans for the unlisted foodborne pathogenic agent *Salmonella* as part of the Veterinary Services mission to prevent, eliminate or control food safety hazards in animal production.

Chapter 6.12. deals specifically with the zoonotic risk associated with the movements of non-human primates and gives standards for certification, transportation and import conditions for these animals.

### 5) Trade requirements

Animal health measures related to international trade should be based on WOAAH standards. A Member Country may authorise the importation of animals or animal products into its territory under conditions different from those recommended by the *Terrestrial Code*. To scientifically justify more stringent measures, the importing country should conduct a risk analysis in accordance with WOAAH standards, as described in Chapter 2.1. Members of the WTO should refer to the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).

Chapters 5.1. to 5.3. describe the general obligations and ethical responsibilities of importing and exporting countries in international trade. Veterinary Authorities and all veterinarians directly involved in international trade should be familiar with these chapters. Chapter 5.3. also describes the WOAAH informal procedure for dispute mediation.

WOAH aims to include an article listing the commodities that are considered safe for trade without the need for risk mitigation

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measures specifically directed against a particular listed disease, infection or infestation, regardless of the status of the country or zone of origin for the agent in question, at the beginning of each listed disease-specific chapter in Sections 8 to 16. This is work in progress and some chapters do not yet contain articles listing safe commodities. When a list of safe commodities is present in a chapter, importing countries should not apply trade restrictions to such commodities with respect to the agent in question. Chapter 2.2. describes the criteria used to assess the safety of commodities.

6) International veterinary certificates

An international veterinary certificate is an official document that the Veterinary Authority of an exporting country issues in accordance with Chapters 5.1. and 5.2. It lists animal health requirements and, where appropriate, public health requirements for the exported commodity. The quality of the exporting country's Veterinary Services is essential in providing assurances to trading partners regarding the safety of exported animals and products. This includes the Veterinary Authority's ethical approach to the provision of veterinary certificates and their history in meeting their notification obligations.

International veterinary certificates underpin international trade and provide assurances to the importing country regarding the health status of the animals and products imported. The measures prescribed should take into account the health status of both exporting and importing countries, and zones or compartments within them, and be based upon the standards in the *Terrestrial Code*.

The following steps should be taken when drafting international veterinary certificates:

- a) identify the diseases, infections or infestations from which the importing country is justified in seeking protection because of its own health status. Importing countries should not impose measures in regards to diseases that occur in their own territory but are not subject to official control programmes;
- b) for commodities capable of transmitting these diseases, infections or infestations through international trade, the importing country should apply the relevant articles in the listed disease-specific chapters. The application of the articles should be adapted to the disease status of the country, zone or compartment of origin. Such status should be established according to Article 1.4.6. except when articles of the relevant listed disease chapter specify otherwise;
- c) when preparing international veterinary certificates, the importing country should endeavour to use terms and expressions in accordance with the definitions given in the Glossary. International veterinary certificates should be kept as simple as possible and should be clearly worded, to avoid misunderstanding of the importing country's requirements;
- d) Chapters 5.10. to 5.13. provide, as further guidance to Member Countries, model certificates that should be used as a baseline.

7) Guidance notes for importers and exporters

It is recommended that Veterinary Authorities prepare "guidance notes" to assist importers and exporters understand trade requirements. These notes should identify and explain the trade conditions, including the measures to be applied before and after export and during transport and unloading, and the relevant legal obligations and operational procedures. The guidance notes should advise on all details to be included in the health certification accompanying the consignment to its destination. Exporters should also be reminded of the International Air Transport Association rules governing air transport of animals and animal products.

[...]



D. Name of animal species

In the Terrestrial Code, common terms (in bold in the table below) referring to animals are based on scientific names as shown below.

<u>Higher level terms</u>	<u>Terms based on Order or Sub-order</u>	<u>Terms based on Family</u>	<u>Terms based on Sub-Family</u>	<u>Terms based on Tribe</u>	<u>Terms based on Genus</u>
<u>Class 'Insecta'</u>	=	<u>Family 'Apidae'</u>	<u>Sub-Family 'Apinae'</u>  <b>'bees'</b> means animals of <u>Sub-Family 'Apinae'</u>	<u>Including animals of Tribe:</u> • <u>'Apini'</u>	<u>Including animals of Genus:</u> • <u>'Apis'</u> <b>'honey bees'</b> means animals of Genus <u>Apis.</u>
				<u>Including animals of Tribe:</u> • <u>'Bombini'</u>	<u>Including animals of Genus:</u> • <u>'Bombus'</u> <b>'bumble bees'</b> means animals of Genus <u>Bombus.</u>
				<u>Including animals of Tribe:</u> • <u>'Meliponini'</u> <b>'stingless bees'</b> means animals for Tribe <u>'Meliponini'</u>	=
<u>Class 'Aves'</u>  <b>'avian'</b> means <u>animals of class Aves</u>	<u>Order 'Galliformes'</u>	=	=	=	<u>Including animals of Genus:</u> • <u>'Gallus'</u> • <u>'Meleagris' etc.</u> <b>'chicken'</b> means <u>Gallus gallus domesticus.</u> <b>'turkey'</b> means <u>Meleagris gallopavo.</u>
	<u>Order 'Anseriformes'</u>	=	=	=	<u>Including animals of Genus:</u> • <u>'Anser'</u> • <u>'Branta'</u> • <u>'Anas' etc.</u> <b>'geese'</b> means animals of Genera <u>Anser and Branta.</u> <b>'ducks'</b> means <u>Anas platyrhynchos.</u> <b>('domestic ducks'</b> means <u>Anas platyrhynchos domesticus.)</u>
<b>'mammals'</b> means <u>animals of Class 'Mammalia'</u>  <b>'ungulates'</b> means <u>animals</u>	<b>'ruminants'</b> means <u>animals of Sub-order 'Ruminantia'</u>	<b>'bovids'</b> means <u>animals of Family 'Bovidae'</u>	<b>'bovines'</b> means <u>animals of Sub-Family 'Bovinae'</u>	=	<u>Including animals of Genus:</u> • <u>'Bos'</u> • <u>'Bubalus'</u> • <u>'Bison'</u> • <u>'Syncerus' etc.</u>
			<b>'caprines'</b> means <u>animals of Sub-Family 'Caprinae'</u>	=	<u>Including animals of Genus:</u> • <u>'Ovis'</u> • <u>'Capra', etc.</u>

<u>of Order</u> <u>'Artiodactyla'</u> <u>(even-toed</u> <u>ungulates) and</u> <u>Order</u> <u>'Perissodactyla'</u> <u>(odd-toed</u> <u>ungulates)</u>  <u>'artiodactyls'</u> <u>means animals</u> <u>of Order</u> <u>'Artiodactyla'</u> <u>(even-toed</u> <u>ungulates)</u>					<u>'sheep'</u> means <i>Ovis aries</i> . <u>'goats'</u> means <i>Capra hircus</i> (domestic goats) and <i>Capra aegagrus</i> (wild goats).
			Sub-Family ' <u>Antilopinae</u> '	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• '<u>Gazella</u>'</li> <li>• '<u>Antilope</u>'</li> <li>• '<u>Dibatag</u>', etc.</li> </ul>
		<u>'cervids'</u> means animals of Family ' <u>Cervidae</u> '	Sub-Family ' <u>Cervinae</u> '	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• '<u>Cervus</u>'</li> <li>• '<u>Dama</u>', etc.</li> </ul>
			Sub-Family ' <u>Capreolinae</u> '	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• '<u>Capreolus</u>'</li> <li>• '<u>Odocoileus</u>'</li> <li>• '<u>Rangifer</u>', etc.</li> </ul>
	Sub-Order ' <u>Suina</u> '	<u>'suids'</u> means animals of Family ' <u>Suidae</u> '	=	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• '<u>Sus</u>'</li> <li>• '<u>Phacochoerus</u>'</li> <li>• '<u>Hylochoerus</u>', etc.</li> </ul> <u>'pigs'</u> means <i>Sus scrofa</i> (domestic and wild).
	Sub-Order ' <u>Tylopoda</u> '	<u>'camelids'</u> means animals of Family ' <u>Camelidae</u> '	Sub-Family ' <u>Camelinae</u> '	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• '<u>Camelus</u>'</li> <li>• '<u>Lama</u>'</li> <li>• '<u>Vicugna</u>'</li> </ul> <u>'dromedary camels'</u> means <i>Camelus dromedarius</i> . <u>'bactrian camels'</u> means <i>Camelus bactrianus</i> . <u>'alpacas'</u> means <i>Lama guanicoe pacos</i> . <u>'llamas'</u> means <i>Lama guanicoe glama</i> . <u>'New World camelids'</u> means animals of Genus <u>alpacas and Lamas and Vicugna</u> .
	Sub-Order ' <u>Hippomorpha</u> '	<u>'equids'</u> means animals of Family ' <u>Equidae</u> '	<u>'equines'</u> means animals of Sub-Family ' <u>Equinae</u> '	=	<u>Including animals of only Genus 'Equus'</u> <u>'horses'</u> means <i>Equus ferus caballus</i> . <u>'donkeys'</u> means <i>Equus africanus asinus</i> . <u>'mules'</u> means <i>Equus africanus asinus</i> (male) × <i>Equus ferus caballus</i> (female). <u>'zebras'</u> means animals of subgenus <u>Hippotigris</u> .

<u>'lagomorphs' means animals of Order 'Lagomorpha'</u>	<u>'leporids' means animals of Family 'Leporidae'</u>	=	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• <u>'Oryctolagus'</u></li> <li>• <u>'Lepus'</u></li> <li>• <u>'Sylvilagus'</u></li> </ul> <u>'rabbits' means animals of Genus Oryctolagus'.</u> <u>'hares' means animals of Genus Lepus.</u> <u>'European hares' means Lepus europaeus.</u>
<u>'carnivores' means animals of Order 'Carnivora'</u>	<u>'canids' means animals of Family 'Canidae'</u>	<u>Sub-Family 'Caninae'</u>	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• <u>'Canis'</u></li> </ul> <u>'dogs' means Canis lupus familiaris.</u>
	<u>'felids' means animals of Family 'Felidae'</u>	=	=	<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• <u>'Felis'</u></li> </ul> <u>'cats' means Felis catus.</u>
	<u>Family 'Mustelidae'</u>			<u>Including animals of Genus:</u> <ul style="list-style-type: none"> <li>• <u>'Mustela'</u></li> </ul> <u>'ferrets' means Mustela furo.</u>
<u>'rodents' means animals of Family 'Rodentia'</u>	=	=	=	=
<u>'bats' means of animals of Order 'Chiroptera'</u>	=	=	=	=
<u>'non-human primates' means animals of Order 'Primates' except for humans (Genus 'Homo')</u>	=	=	=	=

In each chapter of the Terrestrial Code, scientific names of the animals are provided when the vernacular names used in the chapter do not include all the species as described in this table, e.g. 'bovines (Bos indicus, B. taurus, B. grunniens, Bubalus bubalis and Syncerus caffer)', which in that example does not include animals of genus bison, or when the list of animals is very long, e.g. 'animals of the families Suidae and Cervidae, the subfamilies bovinae, caprinae and antilopinae of the family Bovidae, and Camelus bactrianus'.

## CHAPTER 7.1.

INTRODUCTION TO THE RECOMMENDATIONS FOR  
ANIMAL WELFARE

<b>NORWAY</b>	<p><b>General :</b></p> <p><b>Norway supports the suggested revision of this chapter, and welcomes the clarifications in the wording used.</b></p>
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**Article 7.1.1.**

## General considerations

*Animal welfare* means the physical and mental state of an *animal* in relation to the conditions in which it lives and dies.

An *animal* experiences good welfare if the *animal* is healthy, comfortable, well nourished, safe, is not suffering severely or for a long time from avoidable unpleasant states such as pain, fear and *distress*, and is able to express behaviours that are important for its physical and mental state.

Good *animal welfare* requires disease prevention and appropriate veterinary care, shelter, management and nutrition, a stimulating and safe environment, humane handling and humane *slaughter* or *killing*. Good animal welfare is not only about avoiding negative experiences to animals, but also providing them with positive experiences. While *animal welfare* refers to the state of the *animal*, the treatment that an *animal* receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

**Article 7.1.2.**

## Guiding principles for animal welfare

- 1) ~~That~~ There is a critical relationship between animal health and *animal welfare*.
- 2) ~~That~~ While the internationally recognised “five freedoms” (freedom from hunger, thirst and malnutrition; freedom from fear and *distress*; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) provide valuable guidance in *animal welfare*, the ‘five domains’ (nutrition, environment, health, behavioural interactions, behaviour, and mental state) support the systematic scientific assessment of *animal welfare*.
- 3) ~~That~~ The internationally recognised “three Rs” (reduction in numbers of *animals*, refinement of experimental methods and replacement of *animals* with non-animal techniques) provide valuable guidance for the use of *animals* in science.
- 4) ~~That~~ The scientific assessment of *animal welfare* involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.
- 5) ~~That~~ The use of *animals* in agriculture, education and research, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people.
- 6) ~~That~~ The use of *animals* carries with it an ethical responsibility to ensure the welfare of such *animals* to the greatest extent practicable.
- 7) ~~That~~ Improvements in farm *animal welfare* can often improve productivity and food safety, and hence lead to economic benefits.

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- 8) ~~That t~~The equivalent welfare outcomes based on performance criteria, rather than identical systems based on design criteria, be are the basis for comparison of *animal welfare* standards and recommendations.

#### Article 7.1.3.

##### Scientific basis for recommendations

- 1) Welfare is a broad term which includes the many elements that contribute to an *animal's* quality of life, including its physical and mental states ~~those referred to in the "five freedoms" listed above.~~
- 2) The scientific assessment of *animal welfare* has ~~progressed rapidly in recent years and formed~~ the basis of the recommendations of the Terrestrial Code for animal welfare. Welfare assessment can be either at a point in time or over a period of time such as a lifetime. There is value in using the 'five freedoms' and 'five domains' models. The 'five domains' model allows consideration to be given to both the degree and cumulation of positive and negative experiences over the duration of the animal's life.
- 3) Some measures of *animal welfare* involve assessing the degree of impaired functioning associated with injury, disease and malnutrition. Other measures provide information on *animals'* needs and positive or negative affective states such as hunger, pain and fear, often by measuring the strength of *animals'* preferences, motivations and aversions. Others assess the physiological, behavioural and immunological changes or effects that *animals* show in response to various challenges.
- 4) Such measures can lead to criteria and indicators that help to evaluate how different methods of managing *animals* influence their welfare.

#### Article 7.1.4.

##### Guiding principles for the use of measures to assess animal welfare

- 1) ~~the OIE WOAH~~ *animal welfare* standards ~~to be applicable globally, they should~~ emphasise the favourable consequences that any treatments on animals may have on their welfare and they should be applicable globally. ~~outcomes for the animals, although, in some circumstances, it may~~ include recommendations on ~~be necessary to recommend~~ specific conditions of the *animals'* environment and management. ~~Outcomes are generally measured by assessing the extent to which animals experience the "five freedoms" described in Article 7.1.2.~~
- 2) For each principle listed in Article 7.1.5., the most relevant criteria (or measurable), ideally comprising animal-based measures, defined as an evaluation of a response of an animal or as an effect on an animal used to assess its welfare, should be included in the standard. Any given animal-based measure ~~may~~ should be linked to one or more of these ~~than one~~ principles.
- 3) Recommendations should, whenever possible, define explicit targets or thresholds that should be met for animal-based measures. Such target values should be based on relevant science and experience of experts.
- 4) In addition to animal-based measures, one may use resource-based measures, defined as an evaluation of a feature of the environment in which the animal is kept or to which is exposed and management-based measures, defined as an evaluation of what the animal handler does, and with which management processes or tools, may be used. ~~may be used and~~ The use of any of these three types of measures should be defined on the basis of science and expert experience showing that a welfare outcome is clearly linked to an animal as well as to a resource or ~~to~~ a management procedure.
- 5) ~~Users of the standard. Members should select~~ The most appropriate animal-based relevant measures from among those listed in the standards should be selected for their a given farming system or environment, ~~from among those listed in the standard.~~ Welfare ~~Outcomes can be measured by an assessment of individuals or animal groups, or a representative sample of those, using data from establishments, transport or slaughterhouses/abattoirs. Competent Authorities should collect all data relevant for the users~~ to set target and threshold values.
- 6) Whatever the basis of the measure, if welfare outcomes are unsatisfactory, users ~~Members relevant~~ should consider what changes to resources or management are necessary should be applied to improve the welfare outcomes.

#### Article 7.1.5.

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General principles for the welfare of animals in livestock production systems

- 1) Genetic selection should always take into account the health and welfare of *animals*.
  - 2) *Animals* chosen for introduction into new environments should be suited to the local climate conditions, including their adaptability and able to adapt to local climate, diseases, ~~parasites~~ and nutrition.
  - 3) The physical environment, including the substrate (walking surface, resting surface, etc.), should be suited to the species so as to minimise risk of injury and transmission of diseases ~~or parasites~~ to *animals*.
  - 4) The physical environment should allow comfortable ~~resting, and~~ safe resting and comfortable movement including normal postural changes, and the opportunity to perform ~~types of~~ natural behaviours s that *animals* are motivated to perform.
  - 5) Social grouping of *animals* should be managed to allow promote positive social behaviour and minimise injury, *distress* and chronic fear.
  - 6) For housed *animals*, air quality, air flow, temperature and humidity should ~~not be aversive-detrimental~~ and should support good animal health and welfare ~~and not be aversive~~. Where and when extreme weather conditions occur, *animals* should not be prevented from using their natural methods of thermo-regulation.
  - 7) *Animals* should have access to sufficient *feed* and water, suited to the *animals'* age and needs, to maintain normal health and performance productivity and to prevent severe or prolonged hunger and, thirst, malnutrition and ~~or~~ dehydration.
  - 8) Diseases ~~and parasites~~ should be prevented and controlled as much as possible through good management practices and biosecurity. *Animals* with serious health problems should be isolated and treated promptly or killed humanely if treatment is not feasible or recovery is unlikely.
  - 9) Alternatives to painful procedures should be used. Where painful procedures cannot be avoided, the resulting pain should be managed to the extent that available methods allow.
  - 10) The handling of *animals* should foster a positive relationship between humans and *animals* and should not cause injury, panic, lasting fear or avoidable stress.
  - 11) Owners and handlers should have sufficient training, skills and knowledge to ensure that *animals* are treated in accordance with these principles.
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## CHAPTER 7.6.

## ANIMAL WELFARE AT THE TIME OF KILLING

NORWAY	<p><b>General:</b></p> <p>Norway thanks WOAAH for its work on this completely reworked chapter on killing of animals. We fully support that the scope of the chapter is broadened so that it now addresses the welfare of animals that are killed irrespective of the reason for killing and not only when they are killed for disease control purposes. We do however have several comments as indicated below.</p>
NORWAY	<p><b>Change:</b></p> <p>Concerning the title: ANIMAL WELFARE AT THE TIME OF KILLING</p> <p>We ask WOAAH to consider this alternative: <a href="#">Ensuring the animal welfare of animals at time of killing</a></p> <p><b>Rationale:</b></p> <p>To make it quite clear that the chapter provides provisions on how to ensure a better welfare for the animals when they are killed and to avoid common hazards that put the welfare of the animal at risk.</p>

## Article 7.6.1.

## Introduction

Animals are killed for a variety of reasons, including for contagious disease control, in case of natural or man-made disasters, when they are otherwise suffering from disease or injuries or for economic reasons. It is important to consider their welfare during this process.

NORWAY	<p><b>Addition:</b></p> <p>Norway asks WOAAH to consider amending the first sentence as follows:</p> <p>Animals are killed for a variety of reasons, including for contagious disease control, in case of natural or man-made disasters, when they are otherwise suffering from disease or injuries, or for economic <a href="#">or other reasons</a>.</p> <p><b>Rationale:</b></p> <p>Other reasons may occur that necessitates the killing of numerous animals, e.g. when the workforce at the abattoir is on strike and the farmer cannot keep the rapidly growing animals for much longer due to lack of space. This is just one example and there may be many more.</p>
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## Article 7.6.2.

## Scope

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This chapter identifies hazards to animal welfare during *killing* and provides recommendations for the appropriate procedures for killing. It provides animal-based and other measures to assess the level of welfare during the process and recommends appropriate remedial actions to be applied.

This chapter applies to the killing of domestic and *captive wild* ruminants, equids, birds, pigs, rabbits, camelids and mustelids for all purposes, except for slaughter which is covered by Chapter 7.5. Animal welfare during slaughter.

NORWAY	<p><b>Addition:</b></p> <p>In the “Report of the Meeting of WOAHS Terrestrial Animal Health Standards Commission” page 63, the Commission noted “that the revised chapter appeared to focus on the welfare issues related to mass killing of animals”. It is however not immediately apparent from the scope, that this chapter is only supposed to target situations when it is necessary to kill numerous animals, i.e. mass killings. For example, article 7.6.3. could also be understood to apply when only one or a few animals in a flock or herd needs to be killed.</p> <p>Another issue is whether the chapter only concerns production animals i.e. animals kept for economic purposes. We ask WOAHS to consider amending as follows:</p> <p>This chapter applies to the killing of <u>numerous</u> domestic and captive wild ruminants, equids, birds, pigs, rabbits, camelids and mustelids for all purposes, except for slaughter which is covered by Chapter 7.5. Animal welfare during slaughter. <u>Furthermore, it only applies to those animals kept for economic purposes.</u></p> <p><b>Rationale:</b></p> <p>If this chapter is indeed supposed to be limited to those situations where it is necessary to kill very many animals, this should be explicitly stated to avoid misunderstandings and for the sake of clarity.</p> <p>We would also like to highlight that the term “mass killing” seems to be linked to instances of genocide or other instances where very many humans are killed/murdered. WOAHS should consider looking into the terminology and try to find a word that is not so emotionally charged.</p> <p>Concerning the type of holding, for some of the species listed such as birds, equids and rabbits, even in non-commercial holdings the number of animals can be quite high. For this reason, it would be helpful to know whether companion animals or animals not kept for commercial purposes are outside of the scope.</p>
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This chapter should be read in conjunction with the guiding principles for *animal welfare* provided in Chapter 7.1.

Article 7.6.3.

General principles for the operations regarding the killing of animals

The decision as to whether to kill animals should not be delayed if there is any risk to the welfare of those animals. The recommendations in this Chapter are based on the premise that a decision to kill the animals has been made and they address the need to ensure the welfare of the animals until they are dead.

NORWAY	<p><b>Change/addition:</b></p> <p>Norway asks WOAHS to consider moving one of the other sentences in this article here so that the above paragraph reads:</p> <p>The decision as to whether to kill animals should not be delayed if there is any risk to the welfare of those animals. The recommendations in this Chapter are based on the premise that a decision to kill the animals has been made and they address the need to ensure the welfare of the animals until they are dead. <u>It follows therefore, that during decision making and prior to killing the animals, normal husbandry, especially supply of feed and water, should, as far as possible, be maintained until the animals are killed.</u></p>
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	<p><b>Rationale:</b></p> <p>Maintaining normal husbandry practices should be part of the premise of the chapter, as normal husbandry practices is regulated in other chapters of the terrestrial code. In addition, it may not be possible in all situations to maintain normal husbandry practices. For example, in cases of disasters like flooding, the best option is to kill the animals as quickly and humanely as possible. See also comment on fifth paragraph below.</p>
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All personnel involved in the killing of animals should have the relevant skills and competencies.

As necessary, operational procedures should be adapted to the specific circumstances on the premises and should address, apart from animal welfare, the cost of the method, operators' safety and mental health, biosecurity and environmental aspects.

During decision making and prior to killing the animals, normal husbandry, especially supply of feed and water, should be maintained until the animals are killed.

NORWAY	<p><b>Addition and deletion:</b></p> <p>Norway asks WOAAH to consider changing and moving the above sentence to the second paragraph:</p> <p><del>During decision making and prior to killing the animals, normal husbandry, especially supply of feed and water, should, as far as possible, be maintained until the animals are killed.</del></p> <p><b>Rationale:</b></p> <p>See above.</p>
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The handling and movement of animals should be minimised and carried out in accordance with the recommendations described below.

Animal restraint should be sufficient to facilitate effective killing, and in accordance with animal welfare and operator safety requirements. When restraint is required, killing should follow with minimal delay.

Killing methods used should result in immediate death or loss of consciousness lasting until death. When loss of consciousness is not immediate, induction of unconsciousness should involve as little aversion as possible and should not cause avoidable distress, fear and pain.

Young animals should be killed before older animals on which they are dependent to reduce potential distress.

NORWAY	<p><b>Addition:</b></p> <p>Norway asks WOAAH to consider inserting a few additional sentences:</p> <p><u>When feasible, the order in which animals are killed should be based on an assessment of the welfare of the animals concerned, and those animals whose suffering is the greatest should be killed first. For instance, clinically sick animals before infected, animals with injuries before healthy ones and</u> young animals should be killed before older animals on which they are dependent to reduce potential distress.</p> <p><b>Rationale:</b></p> <p>The aim should be to minimise the suffering of those animals that are most heavily impacted by the situation. Depending on the situation and why it is necessary to kill numerous animals, there may be different causes for suffering. The proposed example only covers one type of suffering.</p>
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	<b>In some situations, the animals will not be killed individually, and it is then not possible to kill first the sick and then the healthy animals. This may for instance be true if gas is used to kill all poultry in the shed.</b>
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For disease control purposes and for biosecurity considerations, infected animals should be killed first, followed by in-contact animals, and then remaining animals.

There should be continuous monitoring of the operational procedures to ensure they are consistently effective regarding animal welfare, operator safety and *biosecurity*.

When the operational procedures are concluded, there should be a written report describing the practices adopted and their effect on animal welfare, operator safety, *biosecurity and responsible personnel*.

NORWAY	<p><b>General:</b></p> <p>To whom should the report be addressed? Will this vary depending on whether the competent authority is involved or not? Is the report to be sent within the country, e.g. from regional level to national level. The purpose of this and the other reports mentioned in the other articles needs to be specified. The purpose of a report could be to generate statistics or to provide feedback and so improve the procedures next time. If the report is not used afterwards, it should not be required to write one.</p>
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Article 7.6.4.

Organisational structure for the operations regarding the mass killing of animals

NORWAY	<p><b>General:</b></p> <p>Concerning the term “mass killing” which is used here and in other articles, see our comment to article 7.6.2.</p>
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Operational activities should be led by the *Competent authority* who has the authority to ensure the required *animal welfare* and *biosecurity* standards.

NORWAY	<p><b>Addition:</b></p> <p>Norway asks WOAHA to consider the following amendment of the above sentence:</p> <p><u>When relevant</u> operational activities should be led by the Competent authority who has the authority to ensure the required animal welfare and biosecurity standards.</p> <p><b>Rationale:</b></p> <p>The Competent Authority will not be involved in all situations where it is required to kill the whole flock. In Norway it is most common to kill all the hens in a flock in-house at end of lay with gas. This proposed amendment also ties in with the last sentence in this article and may help to avoid confusion as to who is to lead the activities.</p>
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The Competent authority should nominate a responsible agent for all activities across one or more affected locations or premises who should be supported by coordinators for planning operations and logistics to facilitate efficient operations.

The responsible agent of the *Competent authority* should provide overall guidance to personnel and logistic support for operations at all affected locations or premises to ensure consistency in adherence to the *Terrestrial Code’s animal welfare* and animal health recommendations.

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A specialist team, led by a team leader answerable to the responsible agent nominated by the *Competent Authority*, should be deployed to work on each affected location or premises. In some situations, personnel may be required to fulfil more than one function. Each team should contain a *veterinarian* or have access to veterinary advice at all times.

Emergency plans should be in place and contain details of responsibilities, management structure, disease control strategies, operational procedures and necessary equipment and resources. *Animal welfare* considerations should always be addressed in these emergency plans. The plans should include a strategy to ensure that an adequate number of personnel competent in the *killing* of animals is available.

Depopulation under disease control emergency plans should be performed under the supervision of *Competent Authority* and address any *animal welfare* issues that may result from standstill or any other animal movement restriction.

In considering the *animal welfare* issues associated with *killing* animals, the key personnel, their responsibilities, and competencies required are described in Article 7.6.5.

In other situations that do not necessarily involve the *Competent Authority*, the personnel responsible should follow the recommendations of this chapter.

#### Article 7.6.5.

Responsibilities and competencies of the specialist team for the operations regarding the mass killing of animals

1. Team leader

a) Responsibilities

- (i) plan overall operations on affected location or premises;
- (ii) determine and address requirements for *animal welfare*, operator safety and *biosecurity*;
- (iii) organise and manage team of people to facilitate *killing* of the relevant animals on the location or premises in accordance with national regulations and these recommendations;
- (iv) determine logistics required;
- (v) monitor operations to ensure *animal welfare*, operator safety and *biosecurity* requirements are met;
- (vi) report upwards on progress and problems;
- (vii) provide a written report at the conclusion of the *killing* operation, describing the practices adopted and their effect on *animal welfare*, operator safety, efficacy of *biosecurity* and environmental impact.

b) Competencies

- i) knowledge of relevant animal husbandry practices;
- ii) knowledge of *animal welfare* and the underpinning behavioural, anatomical and physiological processes involved in the *killing* operation;
- iii) skills to manage all activities on the location or premises and deliver outcomes on time;
- iv) awareness of psychological effects on farmer, team members and general public;
- v) communication skills;
- vi) capacity to evaluate the environmental impacts caused by their operation.

NORWAY	<p><b>General:</b></p> <p>Norway understands and supports that there is someone present who has one or all these competencies. However, we are not sure that it is realistic to expect one person, i.e. the team leader to have all the above skills. The team leader should be able to have personnel to support him/her in areas where competence is lacking. We do not believe that all of our staff for example have competencies related to “psychological effects on farmers” or “capacity to evaluate environmental impact”. In many situations we believe that several authorities will be involved, and they will all have their responsibilities. However, it will be necessary to have someone, a leader, to coordinate and have the overall responsibility.</p> <p>This article should better reflect the reality of many of these situations, which can be quite complex.</p>
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2. Veterinarian

a) Responsibilities

- i) determine and supervise the implementation of the most appropriate *killing* method to ensure that animals are killed without avoidable pain and distress;
- ii) determine and implement the additional requirements for *animal welfare*, including the order of *killing*;
- iii) ensure that confirmation of the *death* of the animals is carried out by competent persons at appropriate times after the *killing* procedure;
- iv) minimise the risk of disease spread within and from the location or premises through the supervision of *biosecurity*;
- v) continuously monitor *animal welfare* and *biosecurity* during killing process;
- vi) collaborate with the team leader on the written report at the conclusion of the *killing*.

b) Competencies

- i) ability to assess *animal welfare*, especially the effectiveness of *killing* and to correct any deficiencies;
- ii) ability to assess *biosecurity* risks.

3. Animal handlers

a) Responsibilities

- i) review on-site facilities in terms of their appropriateness;
- ii) design temporary animal handling facilities, when required;
- iii) move and restrain animals;
- iv) report *animal welfare* and *biosecurity* issues to the *veterinarian*.

b) Competencies

- i) animal handling in emergency situations and in close confinement is required;
- ii) understanding of *biosecurity*.

NORWAY	<b>Addition:</b>
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	<p>Norway asks WOAAH to include other competencies related to animal welfare as follows:</p> <ul style="list-style-type: none"> <li>i) <a href="#">understanding of species-specific behaviour and how to identify signs of fear, distress etc.</a></li> <li>ii) animal handling in emergency situations and in close confinement is required;</li> <li>iii) understanding of biosecurity.</li> </ul> <p><b>Rationale:</b></p> <p>People who are in direct contact with animals play an important role. Their knowledge of animal behaviour and attitudes towards animals will impact on the animal’s welfare. This is clearly demonstrated in EFSA reports where animal handlers are one of the hazards identified. For this reason, it should be the first point.</p> <p><b>Supporting evidence:</b></p> <p>EFSA Welfare of pigs during killing for purposes other than slaughter, published 20 July 2020: “The main hazards are associated with lack of staff skills and training, and poor-designed and constructed facilities.”</p> <p>EFSA Killing for purposes other than slaughter: poultry, adopted 26 September 2019. “In fact, most of the hazards (26) had staff as origin and 24 hazards could be attributed to lack of appropriate skill sets needed to perform tasks or due to fatigue.”</p> <p>These are just examples from a few of the EFSA opinions.</p>
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4. Personnel in charge of killing animals

a) Responsibilities

- i) *killing* of the animals using an appropriate method;
- ii) confirm the death of the animals.

b) Competencies

- i) safe use and maintenance of relevant equipment;
- ii) familiarity with the techniques of restraining and killing the species involved;
- iii) knowledge to assess effective *killing*.

NORWAY	<p><b>Addition:</b></p> <p>Norway asks WOAAH to amend the two first points as follows:</p> <ul style="list-style-type: none"> <li>i) safe <a href="#">and correct</a> use and maintenance of relevant equipment;</li> <li>ii) familiarity with the techniques of restraining, <a href="#">stunning</a> and killing the species involved.</li> </ul> <p><b>Rationale:</b></p> <p>Some elements that may have a tremendous impact on animal welfare are not satisfactorily covered. Some methods both stun and kill, but not all.</p>
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5. Personnel in charge of disposal of dead animals

a) Responsibilities

- i) An efficient dead animal disposal (to ensure *killing* operations are not hindered) should be ensured.

b) Competencies

- i) The personnel should be competent to use and maintain available equipment and apply techniques for the species involved.

6. Breeder, owner, keeper or manager

a) Responsibilities

- i) assist when requested.

b) Competencies

- i) specific knowledge of his/her animals and their environment.

NORWAY	<p><b>Addition:</b></p> <p><b>Norway asks WOAAH to amend the above point as follows:</b></p> <p>i) specific knowledge, <u>especially relating to animal welfare</u>, of his/her animals and their environment.</p> <p><b>Rationale:</b></p> <p><b>As this chapter is about ensuring the welfare of animals when they are killed, competence on animal welfare is relevant and should be particularly mentioned.</b></p>
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**Article 7.6.6.**

**Considerations in the planning of the operations regarding the mass killing of animals**

Many activities will need to be conducted on affected location or premises, including the *killing* of animals. The team leader should develop a plan for *killing* animals on the location or premises which should include consideration of:

- a) minimising handling and movement of animals;
- b) *killing* the animals on the affected location or premises; however, there may be circumstances where the animals may need to be moved to another location for *killing*; when the *killing* is conducted at a *slaughterhouse/abattoir*, the recommendations in Chapter 7.5. should be followed;
- c) the species, number, age and size of animals to be killed, and the order of *killing* them;
- d) methods of *killing* the animals, and their cost;
- e) housing, husbandry, location of the animals as well as accessibility of the farm or the place they are situated;
- f) the availability and effectiveness of equipment needed for *killing* of the animals, as well as the time necessary to kill the required number of animals using such methods;
- g) the availability on the location or premises of facilities that will assist with the *killing*, and the necessity of any additional facilities;

- h) potential *biosecurity* and environmental impact of the operations;
- i) the health and safety of personnel conducting the *killing*;
- j) any legal issues that may be involved, for example where restricted veterinary drugs may be used, or where the process may impact on the environment;
- k) the presence of other nearby premises holding animals;
- l) possibilities for removal and disposal of dead animals.

The plan should minimise the negative animal welfare impacts of the *killing* by taking into account the different phases of the procedures to be applied for *killing*.

Competences and skills of the personnel handling and *killing* animals should be included in the operational plan.

#### Article 7.6.7.

#### Hazards to animal welfare

For the purpose of this chapter, *hazards to animal welfare* means a factor with the potential to adversely affect *animal welfare*.

When killing animals, they may be exposed to different *animal welfare* hazards including improper restraining, rough handling, forced movement, absence of or improper design, inadequate construction and maintenance of premises, adverse weather conditions, unexpected loud noise and ineffective *killing* methods. Exposure to multiple hazards to *animal welfare* can have a negative cumulative effect on the animals [Moberg and Mench, 2000]. Hazards to animal welfare can be minimised mainly by appropriate design of premises and choice of equipment, and through good management, training and competency of personnel.

#### Article 7.6.8.

#### Measures to assess animal welfare at the time of killing

Hazards to animal welfare at the time of killing should be assessed using animal-based measures. However, consideration should be given to the resources provided as well as the design and management of the method.

These animal-based measures should be routinely used in the monitoring of the state of consciousness and death.

NORWAY	<p><b>Addition:</b></p> <p><b>Norway asks WOAH to amend the above sentence as follows:</b></p> <p><b>These animal-based measures should be routinely used in the monitoring of the state of consciousness and death, <a href="#">whichever are most appropriate to use in relation to the stunning/killing method applied.</a></b></p> <p><b>Rationale:</b></p> <p><b>Some indicators may not be relevant to use depending on the killing method chosen. For example, electrical stunning may impact on certain measures making them unreliable.</b></p>
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1. The following animal-based measures can be useful indicators of animal welfare. These measures can be considered as tools to monitor the efficiency of design and management, given that they can affect animal welfare.

- a) Immediate collapse

Effective stunning can be recognised from the immediate loss of posture leading to collapse of the animal. Ineffectively stunned animals, on the other hand, will fail to collapse or will attempt to regain posture after collapse. Some ineffectively

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stunned animals, may occur, for example, if captive bolt shooting position is wrong or electrically immobilised animals lose posture, but remain conscious. The absence of immediate collapse is always indicative of consciousness.

b) Tonic-clonic seizures

Effective stunning often results in the presence of tonic-clonic seizures. Tonic seizures can be recognised by an arched back and rigidly flexed legs under the body and will last for several seconds. It is followed by clonic seizures lasting for seconds and manifested as leg kicking or paddling. The absence of tonic-clonic seizures may be indicative of consciousness [Van der Wal, 1971].

c) Righting reflex [Atkinson et al, 2013; Terlow et al, 2016]

Ineffectively stunned animals and those recovering consciousness will attempt to raise their heads or shake their heads after stunning, which is referred to as righting reflex.

d) Rhythmic breathing [Atkinson et al, 2013; Kamenik et al, 2019; Vecerek et al, 2020]

Effective stunning will result in immediate onset of apnoea (absence of breathing). Ineffectively stunned animals and those recovering consciousness will start to breathe in a pattern commonly referred to as rhythmic breathing, which may begin as gagging and lead to respiratory cycles of inspiration and expiration. Breathing can be recognised from the regular flank and/or mouth and nostril movements. Recovery of breathing, if not visible through these movements, can be checked by holding a small mirror in front of the nostrils or mouth to look for the appearance of condensation due to expiration of moist air.

NORWAY	<p><b>Change:</b></p> <p><b>Norway asks WOAAH to correct some words in the above paragraph:</b></p> <p><b>“Effective stunning will result in immediate onset of apnoea (absence of breathing). Ineffectively stunned animals and those recovering consciousness will start to breathe in a pattern commonly referred to as rhythmic breathing, which may begin as gagging and lead to respiratory cycles of <u>inhalation inspiration</u> and <u>exhalation expiration</u>. Breathing can be recognised from the regular flank and/or mouth and nostril movements. Recovery of breathing, if not visible through these movements, can be checked by holding a small mirror in front of the nostrils or mouth to look for the appearance of condensation due to <u>exhalation expiration</u> of moist air.”</b></p> <p><b>Rationale:</b></p> <p><b>Linguistic</b></p>
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e) Corneal reflex:

The corneal reflex is elicited by touching or tapping the cornea. Ineffectively stunned animals and those recovering consciousness will blink in response to the stimulus. Effectively stunned and stuck (bled) animals show the absence of the corneal reflex during any key stage. On the other hand, ineffectively or poorly stunned animals and those recovering consciousness prior to sticking or during bleeding are expected to show the presence of the corneal reflex at any key stage. It is worth noting that placement of electrical stunning tongs (electrodes) over the eyes of animals may render this indicator invalid.

f) Palpebral reflex

The palpebral reflex is elicited by touching or tapping a finger on the inner/outer eye can thus or eyelashes. Correctly stunned animals will not show a palpebral reflex. Ineffectively stunned animals and those recovering consciousness will blink in response to the stimulus at any key stage. It is worth noting that placement of electrical stunning tongs (electrodes) over the eyes of animals may render this indicator invalid.

g) Eye movement



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Eye movements and the position of the eyeball can be recognised from close examination of eyes after stunning. Correctly stunned animals will show fixed eyes, and this can be recognised from wide open and glassy eyes with clearly visible iris/cornea in the middle. Eyeballs may be obscured in some animals owing to rotation into the eye socket following effective stunning. Ineffectively stunned animals and those recovering consciousness will show eye movements [EFSA AHAW Panel, 2013, Kamenik et al, 2019]

2. The following animal-based measures can be use as indicators of consciousness but are not sensible to indicate unconsciousness. Therefore, they can be use in addition to the previously mentioned animal-based measures:

a) Response to painful stimuli

Poor stunning can be recognised from the response to painful stimulus. The absence of response to a painful stimulus indicates unconsciousness following stunning. [Terlow et al, 2016. Kamenik et al, 2018]

b) Spontaneous blinking

Conscious animals may show spontaneous blinking and therefore this sign can be used to recognise ineffective stunning or recovery of consciousness after stunning. However, not all the conscious animals may show spontaneous blinking. Spontaneous blinking can be used as an indicator at all key stages of monitoring. It is worth noting that placement of electrical stunning tongs (electrodes) over the eyes of animals may render this indicator invalid. [Gregory et al, 2007; Terlouw et al, 2016, Kamenik et al, 2018]

c) Vocalisation

Vocalisation is expected only in conscious animals and can be used as an indicator in all key stages of monitoring. However, not all conscious animals will vocalise, and hence the absence of vocalisation does not always mean that the animal is unconscious. [Atkinson et al, 2013; Kamenik et al., 2018]

3. The following animal-based measures can be used as the confirmation of death before carcass disposal:

a) Muscle tone

Immediately after killing, dead animals will lose muscle tone, which can be recognized from the completely relaxed legs, floppy ears, and relaxed jaws.

b) Heartbeat

Onset of death leads to permanent loss of heartbeat, which can be ascertained physically by using a stethoscope or by palpation, where possible. [Vogel et al., 2011]

c) Dilated pupils

Dilated pupils (mydriasis) are an indication of death.

**Article 7.6.[...].**

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