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Annex 22

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OIE AD HOC GROUP ON ANIMAL WELFARE AND LAYING HEN PRODUCTION SYSTEMS

Vitoria–Gasteiz (Spain), 6–8 March 2018

The OIE *ad hoc* Group on Animal welfare and laying hen production systems (the *ad hoc* Group) met for the second time at the Neiker Institute, Vitoria–Gasteiz (Spain), on 6–8 March 2018.

The members of the *ad hoc* Group and other participants at the meeting are listed at Annex I.

1. Welcome and introduction

Dr Leopoldo Stuardo, Chargé de mission of the Standards Department, welcomed and thanked the *ad hoc* Group on behalf of the Director General for their agreement to work with the OIE on this important topic. Dr Stuardo thanked Dr Inmaculada Estévez for offering to host the meeting and for the in-kind contributions of the Institute. Dr Estévez thanked the OIE and its Director General for accepting to hold the meeting in the Neiker Institute in Vitoria.

Dr Stuardo asked Members to carefully consider all comments provided by OIE Member Countries and partner organisations in the working document presented for this meeting and reminded them of the need to provide a clear rationale, particularly when not accepting a comment.

Dr Stuardo indicated that the report of the meeting will be presented to the Terrestrial Animal Health Standards Commission (Code Commission) in September 2018, the Code Commission for its consideration and to decide on whether the chapter would be proposed for adoption in 2019.

The draft agenda was adopted without modifications. The adopted agenda is attached as Annex II. Dr Stefan Gunnarsson, chair of the *ad hoc* Group, opened the meeting thanking the members for their dedicated work, and the Member Countries and partner organisations for sending their constructive comments.

2. Review of Member Countries comments on the draft chapter on Animal welfare and laying hen production systems

Comments were received from Australia, Canada, China (People's Republic of), Costa Rica, Guatemala, Japan, New Caledonia, New Zealand, Norway, Singapore, Switzerland, Thailand, USA, African Union Inter-African Bureau for Animal Resources (AU-IBAR), EU, the International Coalition for Animal Welfare (ICFAW) and the International Egg Commission (IEC).

Where OIE Member Countries and partner organisations made proposals without providing a scientific rationale, the *ad hoc* Group was not able to take these comments into consideration.

During the revision of the chapter and in response to several Member Countries comments, the *ad hoc* Group made various changes throughout the text to improve grammar, syntax, and clarity.

The *ad hoc* Group developed the revised draft Chapter 7.Z. which is attached as Annex III for consideration by the Code Commission at its September 2018 meeting.

Annex 22 (contd)**General comments**

In response to a Member Countries general comment to include the word ‘pullet’ in the title, the *ad hoc* Group did not agree with the suggestion as it considered that the term ‘laying hen production systems’ includes pullets. The *ad hoc* Group did not agree with the general comment of a Member Country to include more detailed explanations of the concepts of indoor and outdoor systems, these are generally understood concepts.

Regarding the general comments of a Member Country of the need to clarify the terms ‘criteria’, ‘outcome-based criteria’, ‘measurable’, ‘outcome-based’ and similar terms, the *ad hoc* Group harmonised the use of these terms throughout the chapter. The use in this chapter is now in line with the new proposed Article 7.1.X. on ‘Guiding principles for the use of measures to assess animal welfare’.

In response to a general comment of a Member Country, the *ad hoc* Group mentioned that they consider pullets to be part of the scope of the chapter. The inclusion of pullets is important because of welfare concerns relating to this phase of production that must necessarily take place prior to production beginning. In addition, this production stage has a great impact on the adaptability potential of the adult layer and on the future production stages. Regarding the general comments of the same Member Country in relation to the approach of using animal-based measures, the *ad hoc* group agreed that resource-based and management-based measures could also be useful. Nevertheless, the OIE prioritises the outcome-based approach to facilitate the implementation of welfare standards at a global level. Finally, in relation to the possible inclusion of a section on humane on-farm killing methods for end-of-lay hens, the *ad hoc* Group noted that this aspect is covered in Chapter 7.6. of the *Terrestrial Code* and is mentioned in Articles 7.Z.24. (Humane killing of individual birds or flocks) and 7.Z.25. (Depopulation of pullet and layer facilities) of this draft chapter.

Regarding the general comment of a Member Country, the *ad hoc* Group did not agree that the whole chapter should be aligned with of the corresponding Chapter 7.X. on animal welfare in pig production systems but has nevertheless tried to align the draft chapter where appropriate.

Concerning the general comment of an Organisation in relation to the list of outcome-based measure, the *ad hoc* Group agreed that there is no intention to prioritise the criteria included in the draft chapter.

Article 7.Z.1. Definitions

The *ad hoc* Group did not agree with part of the comment of a Member Country to include the word ‘intended’ in the definition of ‘Laying hens’, as it is implicit in the definition that they are intended for human consumption. In the same definition the *ad hoc* Group agreed with the Member Country comments to delete the reference to village and backyard flock as it is included now in the Article related to the scope of the draft chapter.

Regarding the suggestion of a Member Country to add a reference to the parent stock used to produce fertilized eggs in the definition of ‘Laying hens’, the *ad hoc* Group did not agree with the suggestion but modified the scope for clarity. The *ad hoc* Group agreed with the Member Country on the importance of the welfare of this category of birds and recommended that the OIE consider developing a specific chapter on breeding poultry in the near future.

The *ad hoc* Group did not agree with the suggestion of a Member Country to add the word ‘commercially’ in the definition of end-of-lay hens, as it is already mentioned in the scope.

Article 7.Z.2. Scope

The *ad hoc* Group did not agree with the first part of the Member Country comments as the addition of the word ‘end-of-lay’ in the scope will narrow the intention of the scope and not reflect all practices found in various parts of the world. In the same definition the *ad hoc* Group agreed to include the reference to village or backyard flocks in Article 7.Z.2., in a slightly modified form.

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The *ad hoc* Group did not agree with the proposal of a Member Country to restrict the scope of the chapter to exclude pullets, as it considers that the rearing period is of fundamental relevance from an animal welfare perspective.

With reference to the suggestion of some Member Countries to include a new paragraph to encourage the provision of some specific resources, the *ad hoc* Group did not agree with the proposal, as this belongs in the recommendations section and not in the scope section. The *ad hoc* Group agreed to consider this suggestion later in the draft chapter.

The *ad hoc* Group did not agree with the comments of a Member Country to include a sentence regarding access to outdoor areas. Recommendations regarding outdoor areas are developed in the next section related to the different production systems.

The *ad hoc* Group did not agree with the suggestion to delete the last part of the first sentence of the description of Indoor Systems, as there are systems without environmental control in various parts of the world. Nevertheless, the *ad hoc* Group added the word 'mechanical' to clarify the kind of environmental control referred to in the scope.

Concerning the request of a Member Country to further clarify the description of indoor and outdoor areas, the *ad hoc* Group amended the description of indoor areas to emphasise that in these systems there is no designated outdoor area of any kind.

The *ad hoc* Group did not agree with the suggestion of some Member Countries to include additional text at the end of the description of the outdoor areas, as the proposed text was a recommendation rather than a description of the system.

Article 7.Z.3. Criteria and measurables for the welfare of pullets and laying hens

The *ad hoc* Group noted and agreed with the request of a Member Country to harmonise this chapter, whenever possible, with the draft chapter on animal welfare and pig production systems.

The *ad hoc* Group acknowledged that the terms criteria and measurable are not synonymous. The *ad hoc* Group revised the text to reflect that measurables (or outcomes) are associated with the animal welfare criteria (or standards).

The *ad hoc* Group agreed with the suggestion of a Member Country and an Organisation to add further text as to the importance of the criteria used when monitoring animal welfare. Nevertheless, the *ad hoc* Group reworded the proposal in a different way to that suggested.

The *ad hoc* Group agreed with a Member Country to add the word 'management', as another consideration to be included when assessing the welfare of the pullets and hens in different production systems.

The *ad hoc* Group agreed, following the proposal of some Member Countries, to add 'bone and foot problems' and 'behaviours' as examples of criteria to be measured. Also, the *ad hoc* Group agreed to add a sentence to highlight that age is not the only factor that could provide an indication of abnormalities.

In response to a Member Country comments, the *ad hoc* Group reworded the third paragraph of Article 7.Z.3. to improve its clarity.

The *ad hoc* Group did not agree to replace the word 'and' with 'or' to be consistent with the modifications made to the title of Article 7.Z.3.

1. Behaviour

The *ad hoc* Group agreed with a Member Country suggestion to add that behaviour can be an indicator of good animal welfare and to note that the opportunities to display different behaviours are affected by the existing variations in their physical and social environments.

The *ad hoc* Group agreed with a Member Country comment to be consistent in the use of the word 'hens' rather than 'chicken' throughout the text and made the necessary adjustments.

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a) Dust bathing

In reference to a comment of some Member Countries to include a sentence that dust bathing could only be performed in housing systems without cages, the *ad hoc* Group did not agree with this proposal as the *ad hoc* Group considered this is a behaviour where expression is independent of the type of production system.

In response to comments from some Member Countries, the *ad hoc* Group did not agree to delete the reference to parasites in relation to the effect of dust bathing and added a new scientific reference to support this statement. The *ad hoc* Group however agreed to the addition of 'feather lipids' to the purpose of the dust bathing behaviour.

The *ad hoc* Group did not agree with several proposals from some Member Countries to modify the article on dust bathing to add references to the sequence in which this behaviour is displayed as it considered these amendments to be too detailed.

b) Fear behaviour

The *ad hoc* Group agreed with a Member Country proposal to include some indications of the consequences of fear behaviour such as traumatic injuries or suffocation. The *ad hoc* Group also agreed to add a reference regarding 'injurious feather pecking' as a consequence of fear behaviour and agreed to include the scientific reference provided to support this statement.

In response to some Member Countries comments to add a reference to the effect of providing enrichment material to prevent fear behaviour the *ad hoc* Group did not agree to include this aspect in this section. The *ad hoc* Group indicated that environmental enrichments are included in other parts of the draft chapter such as nesting, perching and dust bathing, etc.

The *ad hoc* Group did not agree with the proposal by a Member Country to edit the first sentence of the paragraph on fear behaviour but rather modified the paragraph to improve its coherence.

c) Feeding and drinking behaviour

The *ad hoc* Group agreed with the suggestion of a Member Country and an Organisation to include text to highlight that changes in feeding behaviour may indicate management problems. In the same point the *ad hoc* Group did not agree to add a new sentence related to the displacement of pullets and hens in relation to the location of drinkers and feeders, as according to the *ad hoc* Group this idea is already implicit in the text.

The *ad hoc* Group agreed with a Member Country comment that drinking behaviour would not always be reduced during heat stress, nor increased during cold stress, and therefore modified the text accordingly.

d) Foraging activity

The *ad hoc* Group agreed with a Member Country to indicate that foraging material is not necessarily only litter. The word 'litter' was replaced with 'substrate'.

Concerning a suggestion of a Member Country and an Organisation to indicate that foraging is a natural and highly motivated behaviour, the *ad hoc* Group indicated that scientific studies on preferences for different foraging materials and the strength of motivation for birds to access different substrates using a variety of methods have provided conflicting results (see Cooper and

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Albentosa, 2003). Early work using operant techniques to obtain access to litter for pecking and scratching suggested that hens placed little value on access to foraging material (for example Dawkins and Beardsley, 1986; Faure, 1991), although Gunnarsson *et al.* (2000a) found that hens would key peck to obtain access to straw and suggested that hens place a high demand for a litter substrate. Recent work measuring the strength of preferences of hens to access different substrates by passing through weighted doors from a home pen with wire flooring showed that neither the frequencies nor durations of time spent on sand, wood shavings, peat moss or wire floors differed; as weight on the doors increased, hens' visits to the different resources decreased at similar rates (de Jong *et al.*, 2007).

References cited:

COOPER, J.J. and ALBENTOSA, M.J. (2003) Behavioural priorities of laying hens. *Avian and Poultry Biology Reviews* 14: 127–149.

DAWKINS, M.S. and BEARDSLEY, T. (1986) Reinforcing properties of access to litter in hens. *Applied Animal Behaviour Science* 15: 351–364.

FAURE, J.M. (1991) Rearing conditions and needs for space and litter in laying hens. *Applied Animal Behaviour Science* 31: 111–117.

GUNNARSON, S., MATTHEWS, L.R., FOSTER, T.M. and TEMPLE, W. (2000a) The demand for straw and feathers as litter substrates by laying hens. *Applied Animal Behaviour Science* 65: 321–330.

DE JONG, I.C., WOLTHUIS-FILLERUP, M. and VAN REENEN, C.G. (2007) Strength of preference for dustbathing and foraging substrates in laying hens. *Applied Animal Behaviour Science* 104: 24–36.].

Also regarding the suggested addition of a new sentence at the end of this point to indicate the *influence* of housing on the opportunities to display foraging behaviour, the *ad hoc* Group did not agree as it is already considered in the behaviour section.

The *ad hoc* Group agreed with the suggestion of a Member Country to include a sentence referring to the positive animal welfare outcomes of performing foraging behaviour.

e) Injurious feather pecking and cannibalism

The *ad hoc* Group did not agree with the suggestion of some Member Countries and an Organisation to add a new sentence with a reference to the relationship of the lack of enrichment material and injurious feather pecking, as scientific results are not sufficiently conclusive to justify this addition. The *ad hoc* Group considered that this suggestion should be considered in the recommendations part of the chapter.

In relation to a Member Country comment, suggesting to add a sentence indicating that injurious feather pecking could also be spread to other pullets and hens of the flock, the *ad hoc* Group did not agree to include the text, as it is already considered in Article 7.Z.19.

The *ad hoc* Group partially accepted the suggestion of a Member Country to include death as a consequence of injurious feather pecking but did not agree to include 'adding enrichment material', as a way to prevent this negative behaviour. Article 7.Z.19. lists some management methods that may reduce the risk of occurrence of injurious feather pecking and cannibalism.

f) Locomotory and comfort behaviours

The *ad hoc* Group agreed to change the title of this section to 'Locomotory and comfort behaviours', as the word 'Locomotory' implies more than solely movement, and include a broader description of physical movement, including exercise.

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The *ad hoc* Group agreed with the suggestion of a Member Country to add preening as an example of comfort behaviour. The Group also agreed to add, with modification, a new sentence to support the idea of the importance of exercise, and its benefits in term of animal welfare outcomes.

The *ad hoc* Group agreed with the additions suggested by a Member Country relating to the importance of light level on the opportunities to display these behaviours and with the inclusion of additional information concerning the use of this behaviour to detect welfare and health problems. Nevertheless, the *ad hoc* Group decided to include these suggestions in the chapeau of the behaviour section.

Concerning the proposal of a Member Country to delete the second paragraph of this section, the *ad hoc* Group agreed with this proposal and moved it to the end of the chapeau of the behaviour section.

The *ad hoc* Group agreed with the suggestion of an Organisation on the value of having some text related to the required social spacing and included it in the introductory paragraph of the behaviour section, along with the scientific references provided.

g) Nesting

The *ad hoc* Group did not agree with a Member Country suggestion to add references to the characteristics of the nest as this is already considered in Article 7.Z.12.

The *ad hoc* Group agreed with a Member Country and an Organisation on the importance of the housing system in the ability to display nesting behaviour and included it in the chapeau of the behaviour section.

h) Perching

In reference to the suggestion of some Member Countries to include a sentence that perching could be only performed in housing systems without cages, the *ad hoc* Group did not agree with this proposal as this is an important behaviour independent of the type of production system.

i) Sleeping and resting

The *ad hoc* Group agreed to add 'sleeping and resting' to the list of criteria as important behaviours to be considered.

j) Social behaviour

The *ad hoc* Group partially agreed with a Member Country comment and replaced the words 'help in' with 'aiding'. Nevertheless, the *ad hoc* Group did not agree with the same Member Country to add an indication to the damage to plumage and flesh because of resource competition, as this indication is already included in the section concerning feather pecking.

k) Spatial distribution

The *ad hoc* Group did not agree with a Member Country to add an indication of heightened fear level, as this indication is better located in the sections corresponding to space allowance and matching the birds to the housing and production system.

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l) Thermoregulatory behaviour

Concerning the proposal of a Member Country to delete the text referring to piling on top of each other in relation to thermoregulatory behaviour, the *ad hoc* Group agreed with this suggestion as 'piling' is sufficiently covered by the word 'huddling' in the same paragraph.

The *ad hoc* Group did not take any action concerning the suggestion of a Member Country to add the word 'hen' in relation to piling on top of each other, as the text was deleted in accordance with other Member Countries comments.

m) Vocalisation

The *ad hoc* Group did not agree with the suggestion of a Member Country to add a sentence to indicate that different levels of vocalisation can indicate the presence of disease, as vocalisation could be an unspecific response. Nevertheless, the *ad hoc* Group made some modifications to the current wording to improve the clarity of the text.

2. Body condition

Concerning the suggestion of a Member Country to modify the current text of this section, the *ad hoc* Group partially agreed, and included a sentence on the potential problems with health, housing and management. Nevertheless, the *ad hoc* Group agreed to add a sentence dealing with the potential that feather cover could have in hiding problems related to body condition.

The *ad hoc* Group did not agree to add the new sentence suggested by a Member Country concerning the relation of body condition and the commercial breed standards, as this aspect is included in the general part of the recommendations section.

3. Eye conditions

In relation to several comments from some Member Countries on the section regarding eye condition, the *ad hoc* Group amended the text to make the wording less restrictive and to indicate that an eye condition like conjunctivitis could also indicate disease.

4. Foot problems

Several comments from Member Countries and an Organisation suggested the modification of the first and second paragraphs of point 4. on foot problems. The *ad hoc* Group agreed with the suggestion to add a sentence regarding the impact of poorly designed perches and poorly maintained litter on the presence of foot problems. Also, the *ad hoc* Group partially agreed to delete the second sentence about the impact of excessive claw growth, broken claws and toe injuries, but they moved it to the first paragraph for clarity and completeness of the text.

The *ad hoc* Group disagreed with a Member Country proposal to add 'pododermatitis' as a problem related to prolonged contact with wet litter, as the *ad hoc* Group consider that 'contact dermatitis' includes both, 'bumblefoot' and 'pododermatitis'.

In response to a Member Country comment to add a sentence to indicate the importance of the risk of bumblefoot due to contact with manure, the *ad hoc* Group agreed to include manure as one of the risk factors for foot problems but did not agree to include bumblefoot as it was included in 'contact dermatitis'.

5. Incidence of diseases, infections, metabolic disorders and infestations

The *ad hoc* Group did not agree with the proposal of a Member Country to add red mite infestation as an important cause of mortality in laying hens as it considered it was too specific, bearing in mind that this could be one among many other types of infestation.

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6. Injury rate and severity

The *ad hoc* Group did not agree with a Member Country suggestion to add the words ‘the extent of’, in reference to injury rates and severity during production, as it is covered by the word ‘severity’.

Concerning the comment of a Member Country and an Organisation to include the importance of husbandry management in the control of injuries, the *ad hoc* Group agreed with the proposal and modified the text accordingly. In the same paragraph, the *ad hoc* Group did not agree with the suggestion of an Organisation to include keel bone deformation as an example of the consequences of bad husbandry management, as the scientific evidence provided is not sufficiently conclusive.

7. Mortality, culling and morbidity rates

The *ad hoc* Group agreed with the suggestion of a Member Country on the importance of using records for the analysis of trends and to take relevant actions concerning mortality, culling and morbidity rates. In the same point, the *ad hoc* Group did not agree with a Member Country suggestion to replace the term ‘expected’ with ‘generally accepted’ when referring to the range within which mortality, culling and morbidity rates should be. The *ad hoc* Group considered this could imply accepting rates that otherwise could be ameliorated.

8. Performance

The *ad hoc* Group agreed with a Member Country suggestion to add text to improve the clarity of the point referring to egg quality.

The *ad hoc* Group did not agree with the proposal of a Member Country to delete the first two sub-clauses of this section as pullets are within the remit of the draft chapter. The *ad hoc* Group did not agree with the same Member Country proposal to include reference to subclinical disease which could affect the performance of the flock as it did not add clarity to the current text. The *ad hoc* Group also did not agree to include the size of the egg as an indicator, because this can be related to many other factors.

9. Plumage condition

The *ad hoc* Group did not agree with the suggestion of a Member Country to qualify as ‘inappropriate’ environment and production system affecting the plumage condition, as the term was considered subjective.

Concerning the suggestion of a Member Country to include the words ‘a less than optimal’, in reference with environment and production system, the *ad hoc* Group did not agree to include it as it was considered a value judgment.

The *ad hoc* Group did not agree with the comment of a Member Country and an Organisation to add a sentence about the effect of the high cage stocking density, as this is more a recommendation, and is considered in other sections. Furthermore, when reviewing the references given in the rationale of the comments, the *ad hoc* Group agreed that they are not fully supportive of the comments.

In response to some modifications proposed by a Member Country to improve the clarity of the paragraph on plumage condition, the *ad hoc* Group added the words ‘with illness, or’, to improve the readability of the text.

10. Water and feed consumption

Concerning the modifications proposed by several Member Countries on the points related to water and feeding consumption and the importance of considering heat or cold stress and the resulting crowding of birds at feeders and drinkers when there is a problem with the supply, the *ad hoc* Group agreed and modified the text.

Article 7.Z.4. Recommendations

The *ad hoc* Group decided to include a new introductory paragraph in Article 7.Z.4. to emphasise the fact that the welfare of pullets and hens is affected by management factors. Also, the *ad hoc* Group rewrote the introductory part of the article to improve its readability. These modifications also considered some of the Member Countries comments on this part of the chapter.

The *ad hoc* Group, in response to a Member Country comment on including more detailed information on the outcome-based (animal-based) criteria for each production system, did not agree to modify the text as there are important regional variations, all of which need to be considered.

Article 7.Z.5. Location, design, construction and equipment of establishments

The *ad hoc* Group agreed with a Member Country suggestion to include the design of establishments in the title of this article.

In relation to the suggestion of a Member Country to add a new sentence to encourage only systems in which priority behaviours can be performed, the *ad hoc* Group indicates that this is already considered in the second paragraph of the article.

The *ad hoc* Group agreed with a Member Country to add a sentence highlighting the importance of promoting good welfare. Nevertheless, the Group agreed partially with the same Member Country to delete the reference to 'avoid injuries and pain'.

In response to a Member Country comment to add a sentence in relation to the need to have a contingency plan in place, the *ad hoc* Group agreed with this suggestion and modified the text accordingly.

The *ad hoc* Group decided to replace the word 'outcome-based' with 'animal-based' in the heading containing the list of measurables to be considered to assess the effectiveness of the recommendations, in order to be consistent with other animal welfare draft chapters that are currently in preparation.

Following the comment of a Member Country, the *ad hoc* Group reviewed the consistency between the terminologies used in Article 7.Z.3. and the ones used in the list of measurables after each recommendation throughout the chapter.

Regarding the request of a Member Country to explain the criteria for the order of the animal-based measurable, the *ad hoc* Group indicated that the proposal is to have them in alphabetical order and revised the text to ensure consistency with this approach.

Article 7.Z.6. Matching the birds and the housing and production system

The *ad hoc* Group did not agree with some Member Countries comments to include a new paragraph in relation to the aspects which influence feather pecking, as it is considered in Article 7.Z.19. in the recommendations about feather pecking.

The *ad hoc* Group did not agree with a Member Country comments to include a new paragraph on opportunities for hens to perform the full range of their natural behaviours, as it does not belong to this section. Nevertheless, the *ad hoc* Group considered this comment in the modifications of Article 7.Z.5. Location, design, construction and equipment of establishments.

Article 7.Z.7. Socking density (Space allowance)

The *ad hoc* Group agreed with a Member Country suggestion to change the heading of Article 7.Z.7. to Space Allowance for consistency with the definition in the Glossary of the *Terrestrial Code*.

The *ad hoc* Group did not agree with some Member Countries comments to include text in the first paragraph to highlight that access to resources should be without competition, as the term 'adequate access' already indicates no or low competition for resources. In the same paragraph, the *ad hoc* Group did not agree with a recommendation for minimum space, as it was too restrictive. Finally, the *ad hoc* Group did not agree with the suggestion to add a paragraph on limiting the size of the groups as in fact group size *per se* does not appear to be a problem when isolated from the effects of density or pen area (See Estevez *et al.*, 2007).

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The *ad hoc* Group agreed with the suggestions of some Member Countries to highlight the importance of the usable space but did not agree to add a reference to the needs and availability of the resources, as it is already considered in the previous paragraph of this article.

In relation to the suggestion of a Member Country and an Organisation to add dustbathing and foraging as animal-based measurables in this recommendation, the *ad hoc* Group agreed with the proposal, as these behaviours could be affected by poor management or by space allowances.

New Article proposal

Regarding a proposal from a Member Country and an Organisation to add a section on environmental enrichment, the *ad hoc* Group did not agree, considering that throughout the text of the chapter, the main forms of environmental enrichment for poultry are mentioned in detail, such as perches, dust bathing, and foraging areas.

Article 7.Z.8. Nutrition

The *ad hoc* Group did not agree with a Member Country suggestion to include a new paragraph regarding the consequences of poor access to feed, as this is covered in the first sentence of the first paragraph.

Regarding the proposal of a Member Country to add 'debris' as one of the components that feed should be free of, the *ad hoc* Group agreed to include it and modified the text accordingly.

The *ad hoc* Group agreed with a Member Country to add text to emphasize the importance of inspection of watering and feeding systems.

The *ad hoc* Group agreed with several Member Country proposals to include egg quality, body and plumage condition to the list of animal-based measurables to be considered when dealing with the recommendations on nutritional aspects.

Article 7.Z.9. Flooring

The *ad hoc* Group did not agree with a Member Country suggestion to add a new paragraph in relation to the type of flooring, as it was considered too detailed and the essential element is that the kind of floor must be suitable for pullets and hens.

The *ad hoc* Group did not agree with the suggestion of a Member Country to modify the first paragraph of this article, as it was considered unnecessary and did not add clarity to the text. Nevertheless, the *ad hoc* Group decided to move the first paragraph to the end of the second paragraph to improve its readability.

In reference to a comment of some Member Countries to include a sentence that the design of the slope could only be applicable in housing systems without cages, the *ad hoc* Group did not agree as it considers this is an important aspect to consider independent of the kind of production system.

Regarding the proposal of a Member Country to modify the second paragraph of this Article, the *ad hoc* Group agreed to add maintenance as it is an important aspect to consider in relation to the slope of the floor. Also, the *ad hoc* Group modified the text to be consistent with other modifications made throughout the Chapter, in particular, the use of the words 'pullets and hens'.

In reference to a comment of some Member Countries to include a sentence that the provision of dry litter material could only be applicable in housing systems without cages, the *ad hoc* Group did not agree with this proposal as this is an important aspect to consider independently of the kind of production system used.

Concerning the provision of dry litter material, the *ad hoc* Group did not agree with some Member Countries, to include a reference to the depth of it, as it considers that this recommendation applies to dust bathing.

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The *ad hoc* Group did not agree with a proposal of a Member Country to qualify the provision of dry litter material as a need. The scientific literature suggests that hens are moderately motivated to access substrate, but not to the same extent as the strong motivation they show to access a nest or perch. Nevertheless, references to the advantage of providing litter to hen welfare (e.g. reduced feather pecking) are cited in other sections.

The *ad hoc* Group agreed partially with the comments of some Member Countries and an Organisation to modify the third paragraph of this article. To address this comment, it deleted the reference to dust bathing and foraging from the recommendation for clarity and did not agree with a suggestion regarding the management of the use of litter material, as it was considered too restrictive.

The *ad hoc* Group did not agree with a Member Country to delete dust bathing and foraging from the list of animal-based measurables, as both are important criteria when considering the impact of flooring conditions.

Article 7.Z.10. Dust bathing areas

In reference to a comment of some Member Countries to include a sentence that dust bathing could only be applicable and encouraged in housing systems without cages, the *ad hoc* Group did not agree with this proposal as this is an important aspect to be considered independent of the kind of production system used.

The *ad hoc* Group, regarding the comments of some Member Countries and an Organisation, agreed to modify the text of this article, adding a new first paragraph at the beginning of the article to integrate the importance of the concept of friable and dry material, highlighting its use for displaying dust bathing behaviour.

The *ad hoc* Group did not agree with the suggestion of a Member Country to add a new sentence at the end of the recommendation to avoid the use of feed as a dust bathing substrate. The *ad hoc* Group considered it was too specific because there are a variety of feedstuffs which could also be used as a substrate for dust bathing.

Article 7.Z.11. Foraging areas

The *ad hoc* Group did not agree with the edits proposed by a Member Country as it was considered that they did not add clarity to the text.

Regarding some Member Countries and an Organisation comments concerning the use of adequate foraging material, the *ad hoc* Group agreed to modify the text of the article by adding a new paragraph to integrate the use of suitable material, which should be considered to be friable and dry. It also added the word 'activity' in the text of the article and in the list of animal-based measures, to be consistent with the language use in Article 7.Z.3.

Article 7.Z.12. Nesting areas

The *ad hoc* Group did not agree with the proposal of a Member Country to include a new sentence to indicate the physical characteristics of the nesting area, as it was considered too detailed.

Regarding the suggestion of some Member Countries to include references to the adequate number of nesting areas and the kind of substrate to be provided, the *ad hoc* Group did not agree, as the first one is covered by the words 'undue competition' and the second is included in the design aspects.

The *ad hoc* Group did not agree to add a new sentence in relation to the suitability of the type of nesting areas, as it is already included in the current text.

The *ad hoc* Group did not agree with the proposal of an Organisation to include a new sentence to highlight the fact that nesting is a natural and highly motivated behaviour, as this is already considered in Article 7.Z.5.

Annex 22 (contd)

Concerning the recommendation of some Member Countries suggestion to add a reference to egg production in the list of animal-based measurables for the recommendations related to nesting areas, the *ad hoc* Group agreed and included mis-laid or floor eggs in the examples, under performance criteria in Article 7.Z.3.

Article 7.Z.13. Perches

In reference to a comment of some Member Countries to include a sentence that perches could only be applicable and encouraged in housing systems without cages, the *ad hoc* Group did not agree as this is an important aspect to be considered independent of the production system used.

The *ad hoc* Group did not agree with the suggestion of some Member Countries to add a sentence about allowing safe navigation, as this is intrinsic to the considerations of perch design and location aspects.

The *ad hoc* Group agreed with several modifications proposed by some Member Countries and an Organisation. The *ad hoc* Group added a reference to the elevation of the perches and a new sentence to recommend that perches should be well positioned to minimise faecal fouling. Finally, the *ad hoc* Group made several modifications to the first paragraph of this article to improve its clarity.

Concerning the proposal of a Member Country to change 'keel bone deformation' with 'skeletal abnormalities', the *ad hoc* Group preferred to add the word 'other harms' to include the example of the potential problems caused by problems related to the perches that are not in the current text.

The *ad hoc* Group agreed to delete the second paragraph of this article, as the modifications proposed and its content were consistent with the changes done in the previous paragraph.

The *ad hoc* Group agreed with a Member Country suggestion to include plumage condition in the list of animal-based measurables as it is associated with faecal matter potentially falling on birds below.

Concerning the suggestion of some Member Countries to include keel bone problems to the list of animal-based measurables, the *ad hoc* Group indicates that it is already covered within the injury rate measurable.

Article 7.Z.14. Outdoor areas

The *ad hoc* Group did not agree with the suggestion of a Member Country to develop a new section on covered outdoor areas or winter gardens, as this recommendation was considered too detailed and it is not applicable to all the production systems around the world.

Concerning a comment of some Member Countries to include a sentence that outdoor areas could only be applicable and encouraged in housing systems without cages, the *ad hoc* Group did not agree with this proposal as the *ad hoc* Group considered this is an important aspect to be considered independent of the kind of production system used.

The *ad hoc* Group did not agree with the suggestion of a Member Country to modify the first paragraph of this article as the proposed modifications were already considered by the rewording made by the *ad hoc* Group.

Concerning a comment of some Member Countries to delete the reference for management of outdoor areas, the *ad hoc* Group did not agree with this proposal as this is an important aspect to be considered independent of the kind of production system used.

Annex 22 (contd)

The *ad hoc* Group did not agree with the suggestion of a Member Country to include a reference to the attack from predators as this aspect is already covered by Article 7.Z.29. (Protection from predators).

Several suggestions were received from Member Countries to modify the third paragraph of this article. The *ad hoc* Group did not agree as most of them were too detailed or the suggestions were already included in the current text. Nevertheless, the *ad hoc* Group agreed with a Member Country and an Organisation to replace the words 'swampy conditions' with 'standing water' to improve the clarity of the text.

The *ad hoc* Group did not agree to include changes in foraging behaviour in the list of animal-based measurables in this article, but they added the word 'activity' after foraging to be consistent with previous modifications.

The *ad hoc* Group did not agree with a Member Country to include a new animal-based measurable concerning the percentage of use of the outdoor areas, as the spatial distribution covers this and it was deemed too difficult to measure.

Article 7.Z.15. Thermal environment

Concerning various suggestions from some Member Countries to modify the first paragraph of this Article, the *ad hoc* Group agreed to add a reference to the necessary range of the thermal conditions to be maintained; added the word 'thermal' to specify that this condition is important to determine the comfort zones and finally included 'air velocity' as one of the aspects that can affect the thermal comfort zones. The *ad hoc* Group considered that the suggestion to add an indication concerning large temperature fluctuation was already included in the current text and therefore did not agree to include it.

The *ad hoc* Group did not agree with a Member Country suggestion to edit the second paragraph of the article as it considered that the proposed text does not correspond to this section.

The *ad hoc* Group agreed, with the suggestion of a Member Country to add a recommendation that system failures should be detected and corrected before causing a welfare problem.

Article 7.Z.16. Air quality

The *ad hoc* Group agreed with a Member Country suggestion to have a reference to the importance of the housing system to the air quality, and agreed to replace the word 'waste' with 'noxious' when referring to gases with potential harm.

Regarding the proposal of a Member Country to add a new sentence at the end of the second paragraph of this article, the *ad hoc* Group did not consider that the text improves its clarity.

The *ad hoc* Group did not agree to the suggestion of a Member Country to delete the word 'routinely' as the idea behind this wording is to give some flexibility in determining the ammonia level. In the same point, the *ad hoc* Group did not agree with the same Member Country to add different values at which birds could detect hazardous ammonia levels as the scientific reference provided did not support the proposed modifications.

The *ad hoc* Group did not agree with the suggestion of some Member Countries to replace the word 'artificial' with 'mechanical or a powered', or to add a reference to the regular check of the systems. Nevertheless, the *ad hoc* Group decided to delete this part of the text as it is already covered by Article 7.Z.26. (Contingency Plans).

Annex 22 (contd)**Article 7.Z.17. Lighting**

The *ad hoc* Group agreed with the proposal of a Member Country to add a sentence regarding the impact of lighting to stimulate the onset of laying. Nevertheless, they did not agree with the same Member Country to add a recommendation on the influence of the use of perches as it was considered too specific.

Regarding the suggestion of a Member Country to replace the word 'homogeneously' with 'appropriately', the *ad hoc* Group did not agree with the suggestion as the main difficulty of the management of light is to achieve homogeneity. Regarding a comment from the same Member Country, the *ad hoc* Group did not agree to include the word 'behaviour' in this paragraph as 'normal development' includes the behaviour of the birds.

The *ad hoc* Group did not agree with a Member Country and an Organisation suggestion to add more detail regarding light management as it was considered too detailed and restrictive.

The *ad hoc* Group did not agree with the comments of some Member Countries to delete the reference to moulting, as this management tool is widely used, and the examples given do not help to clarify the paragraph. Nevertheless, the *ad hoc* Group made some modifications to improve the readability of the text.

The *ad hoc* Group agreed with a Member Country suggestion to add plumage condition as an important animal-based measurable for lighting recommendations.

Proposal for new article

Regarding the proposal of an Organisation to develop a new article on Genetic Selection, the *ad hoc* Group did not agree, as these aspects are already covered in Article 7.Z.6. (Matching the birds and the housing and production system) and in other sections such as the recommendations on feather pecking.

Article 7.Z.18. Noise

The *ad hoc* Group agreed to amend the text according to the suggestion of a Member Country, however with some modifications.

Regarding the proposal of a Member Country and an Organisation to add a new sentence on the desensitisation to novel noises, the *ad hoc* Group did not agree as this is already covered in the first two sentences of the paragraph.

The *ad hoc* Group agreed with the suggestion of an Organisation to add mortality rate as an important animal-based measurable for noise recommendations.

Article 7.Z.19. Prevention and control of injurious feather pecking and cannibalism

Regarding the comment of a Member Country to delete the word 'injurious' from the beginning of the paragraph, the *ad hoc* Group did not agree as feather pecking always occurs to a certain degree, but what is important is to control injurious feather pecking, as this is what is considered to cause pain and distress.

Concerning the first bullet point of this Article, the *ad hoc* Group did not agree with a Member Country comment to include reference to the level and distribution of this problem, as what is important is the type and frequency of the feather pecking. Also, as light distribution is considered in the management aspects and it did not include a reference in this regard.

The *ad hoc* Group agreed with some Member Countries and an Organisation of the importance of genetics in the propensity to conduct injurious feather pecking and modified the text in the second bullet point.

The *ad hoc* Group agreed to amend the text to expand the definition in line with the suggestion of some Member Countries, albeit in a modified form to that proposed.

Annex 22 (contd)

The *ad hoc* Group did not support the suggestion of a Member Country to add a new point to the management methods as there was no justification to support the proposal.

The *ad hoc* Group did not support the suggestion of a Member Country to replace the word 'diet' with 'kind' as 'diet' refers to more than simply 'kind' and is therefore a broader term.

The *ad hoc* Group did not support the suggestion of an Organisation to amend the term 'adapting diet' as the word adapting covers not only type and form of feed but also refers to the way in which the diet is adapted. There was also no text proposed for the *ad hoc* Group to consider.

Regarding some Member Countries and an Organisation comments, about adding new bullet points regarding the provision of enrichment material and outdoor access to prevent injurious feather pecking, the *ad hoc* Group did not agree noting that the list is not an exhaustive one and some of the management measures that can prevent injurious feather pecking have already been included in the recommendations regarding dust bathing and perching.

In response to the request of a Member Country for clarification, the *ad hoc* Group noted that use of the word 'treatment' is a more general and neutral term, and therefore allows for yet undiscovered, less aggressive techniques, to be used without having to amend the OIE chapter. The modalities of beak treatment are covered in more detail in Article 7.Z.21. (Painful interventions).

Regarding the proposal of a Member Country to add two new bullet points in this article, the *ad hoc* Group did not agree as the scientific reference did not support the statement in relation to minimise the infestation (red mite), and the additional proposed bullet point is already considered in Article 7.Z.6.

Regarding the comment from a Member Country proposing the deletion of the bullet point related to the introduction of males the *ad hoc* Group deleted the text based on the scientific reference provided.

The *ad hoc* Group did not agree with the comment of a Member Country on the need to add the removal of the aggressors, to the management methods for control of injurious feather pecking, mainly because of the difficulties in identifying and removing the aggressors specifically.

The *ad hoc* Group agreed with the suggestion of a Member Country to improve the wording of the third paragraph of this article, and leave the possibility open for a therapeutic beak treatment to be used as a last course of action.

The *ad hoc* Group did not agree with the proposal of a Member Country to add a sentence at the end of the fourth paragraph. Beak treatment is covered within painful interventions and the recommendation is in the framework of an emergency and not as a routine action.

The *ad hoc* Group agreed with the suggestion of a Member Country to include culling rate in the list of animal-based measurables regarding the recommendations for the control of injurious feather pecking.

Article 7.Z.20. Moulting

Regarding the comments of some Member Countries to limit the use of moulting or discouraging its use, the *ad hoc* Group indicated that moulting takes place as a natural process. However, when it is induced it should be done in such way as to not harm the birds. The *ad hoc* Group is aware of the potential animal welfare problems that this process could lead to, and encourages Member Countries to use techniques that will prevent bird distress and suffering.

Article 7.Z.21. Painful interventions

Regarding some Member Countries and an Organisation comments, regarding the first paragraph of the article on painful interventions, the *ad hoc* Group made extensive revisions to improve clarity and to be consistent with the modifications made in the previous article. The *ad hoc* Group also deleted the reference to personnel as this is considered further in Article 7.Z.27. Nevertheless, the *ad hoc* Group considers that it is not necessary to mention any specific method, as other methods could be proved to be more efficient.

Annex 22 (contd)

Concerning the second paragraph of this article, the *ad hoc* Group agreed to delete it, as it was considered repetitive. Nevertheless, part of the paragraph was integrated as a modification of the first paragraph. Also, the *ad hoc* Group highlighted the fact that the beak treatment should be done with the minimum amount of beak removal necessary to avoid other welfare problems.

The *ad hoc* Group did not agree with the comment of a Member Country to indicate the amount of beak that should be removed, as it was considered too specific.

Article 7.Z.22. Animal health management, preventive medicine and veterinary treatment

The *ad hoc* Group agreed with a Member Country comment to add a sentence, to consider the normal behaviour of the birds as an aid to identifying ill-health conditions. Also, the *ad hoc* Group decided to include some modifications to improve the readability of the paragraph.

The *ad hoc* Group did not agree with the suggestion of a Member Country to add an indication of the faecal structure as an indicator of ill-health as it was considered too specific. Also, the *ad hoc* Group did not agree to add a new sentence regarding the plumage condition, as this is already considered in the relevant article.

Regarding the suggestion of a Member Country to include the training of personnel, the *ad hoc* Group considered that this is already covered in Article 7.Z.27.

The *ad hoc* Group agreed with the comment of a Member Country to improve the clarity of the text of the second paragraph of this article and revised it accordingly.

The *ad hoc* Group agreed with a Member Country to include body condition in the list of animal-based measurables to be considered under the recommendations for animal health management, preventive medicine and veterinary treatment.

Article 7.Z.23. Biosecurity

No comments from Member Countries.

Article 7.Z.24. Humane killing of individual birds or flocks

The *ad hoc* Group agreed with a Member Country to add the word 'euthanasia' as an example of an animal that needs to be killed in a humane way according to Chapter 7.6. of the OIE *Terrestrial Code*.

The *ad hoc* Group did not agree with a Member Country to delete this article as it is not enough to just include reference to Chapter 7.6. as this chapter should also be read independently, highlighting the importance of managing euthanasia well is essential.

Article 7.Z.25. Depopulation of pullet and laying hen facilities

The *ad hoc* Group agreed to include a new paragraph in this article to clarify the differences with Article 7.Z.24. on Humane killing of individual birds or flocks, but also to indicate that both articles should be read together.

The *ad hoc* Group agreed with some Member Countries suggestion to include some indication of the way to conduct catching of the pullets and hens but considered these proposals were better included in Article 7.Z.28. (Inspection and handling).

The *ad hoc* Group did not agree to include some recommendations by a Member Country and an Organisation on the distance that the pullets and hens should be carried as it was considered too detailed.

Regarding the suggestion of a Member Country to add a reference to Chapter 7.3., the *ad hoc* Group agreed with the proposal.

Regarding the suggestion of a Member Country to add an additional sentence after the reference to Chapter 7.3., the *ad hoc* Group did not agree as it was considered to be too specific and is also covered in Article 7.Z.28. (Inspection and handling).

Annex 22 (contd)

The *ad hoc* Group did not agree to include several examples of animal-based measurables for this article, as the proposals are more in line with the content of the chapeau of this article rather than animal-based measurables for this article.

The *ad hoc* Group did not agree with the proposal of a Member Country to delete this article, since the new introductory paragraph to the article is an improvement in terms of clarity and this article is different to the recommendations of Article 7.Z.24.

Article 7.Z.26. Contingency plans

The *ad hoc* Group agreed with a Member Country on the need for consistency with other animal welfare chapters and with the implications involved in a response to unexpected situations and proposed to change the title of the article to 'Contingency plans'.

Regarding the suggestion of a Member Country to include the development of a fire safety plan as part of the contingency plan, the *ad hoc* Group agreed with the proposal and made some modifications to the wording.

The *ad hoc* Group did not agree with the comments of a Member Country to include specific indications relevant to environmentally controlled housing. The *ad hoc* Group considered that the suggestions were too detailed. Nevertheless, they made some amendments to the first paragraph of the text to improve its readability.

The *ad hoc* Group partially agreed with a Member Country comment on device testing and included a reference regarding the need for the testing of safe-fail alarms.

Concerning the suggestion of an Organisation to include a new sentence regarding some methods that cause prolonged suffering to the birds, the *ad hoc* Group did not agree to add it, as these recommendations are not part of a contingency plan. Nevertheless, the *ad hoc* Group included the reference to Chapter 7.6. Killing for disease control purposes, to highlight the use of accepted killing methods only.

Article 7.Z.27. Personnel competency

The *ad hoc* Group agreed to make a proposal to the Code Commission to reorder the articles of the chapter, to be consistent with the new OIE animal welfare and production systems chapters.

Article 7.Z.28. Inspection and handling

The *ad hoc* Group agreed to make some important modification in Article 7.Z.28. to consider the comments from several Member Countries and an Organisation. The *ad hoc* Group agreed to include more explicit references to the identification of problems with the facilities and the need to detect and correct malfunctioning equipment.

The *ad hoc* Group did not agree with the comment of a Member Country to replace the word 'quietly' with 'calmly', as the *ad hoc* Group considered that 'quietly' does not mean in silence and the idea of 'calmly' is considered the point of view of the inspector, rather than from outcomes in the pullets and hens.

Article 7.Z.29. Protection from predators

The *ad hoc* Group agreed with the proposal of a Member Country to add a new sentence with a recommendation for building the facilities to prevent access of predators and wild birds. The *ad hoc* Group also noted that this does not mean the achievement of zero predators entering the facilities as it is an unrealistic expectation in commercial facilities.

The *ad hoc* Group did not agree with the suggestion of a Member Country regarding the recommendation to include well-maintained fences and provision of overhead covers, as these conditions are included in the 'design' recommendations.

Annex 22 (contd)

The *ad hoc* Group did not agree to add the words ‘changes to’, in relation to comfort behaviours requested by a Member Country, as it does not improve the current text.

Reordering of the articles

Following some Member Countries comments, the *ad hoc* Group decided to propose for the Code Commission’s consideration a new order of the articles. This proposal is presented as Appendix IV.

3. Programme for further work after this meeting

The *ad hoc* Group were informed that the report, including the amended draft chapter, will be discussed during the September 2018 meeting of the Code Commission. At that meeting the Code Commission will decide if the chapter is in a suitable condition to be presented for adoption during the OIE General Session in May 2019. The OIE Headquarters will contact the Members of the *ad hoc* Group if some additional work will be required after the Code Commission meeting in September 2018.

4. Other business

The OIE would like to thank the Neiker Institute to support the development of this meeting, exceptionally held outside the OIE Headquarters in Paris.

Dr Gunnarsson closed the meeting and thanked all the members of the *ad hoc* Group for their productive and dedicated work. Furthermore, he thanked Stuardo with the OIE team, and Prof. Estevez and the Neiker Institute for excellent organisation and hosting of the meeting.

.../Annexes

Annex 22 (contd)Annex I**OIE AD HOC GROUP ON ANIMAL WELFARE AND LAYING HEN PRODUCTION SYSTEMS****Vitoria–Gasteiz (Spain), 6–8 March 2018****List of participants****MEMBERS OF THE AD HOC GROUP**

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Annex 22 (contd)

Annex II

OIE AD HOC GROUP ON ANIMAL WELFARE AND LAYING HEN PRODUCTION SYSTEMS

Vitoria–Gasteiz (Spain), 6–8 March 2018

Adopted agenda

1. Welcome and introduction
 2. Consideration of Member Country's comments on draft Chapter 7.Z. 'Animals welfare and laying hen production systems' and amend text as appropriate
 3. Programme for further work after this meeting
 4. Draft a report of the *ad hoc* Group meeting
 5. Other business
-

Annex 22 (contd)

Annex III

[Note: this Annex has been replaced by Annex 15 to the report of the meeting of the OIE Terrestrial Animal Health Standards Commission which was held on 11–20 September 2018.]

Annex 22 (contd)

Annex IV

**OIE AD HOC GROUP ON ANIMAL WELFARE AND
LAYING HEN PRODUCTION SYSTEMS**

Votoria - Gasteiz, 6–8 March 2018

Proposal to reorder the Chapter articles

- 7.Z.1. Definitions
 - 7.Z.2. Scope
 - 7.Z.3. Criteria and measurables for the welfare of pullets and hens
 - 7.Z.4. Recommendations
 - 7.Z.5. Location, design, construction and equipment of establishments
 - 7.Z.6. Contingency plans (7.Z.26.)
 - 7.Z.7. Protection from predators (7.Z.29.)
 - 7.Z.8. Space allowance (7.Z.7.)
 - 7.Z.9. Nesting areas (7.Z.12.)
 - 7.Z.10. Perches (7.Z.13.)
 - 7.Z.11. Flooring (7.Z.9.)
 - 7.Z.12. Dust bathing areas (7.Z.10)
 - 7.Z.13. Foraging areas (7.Z.11.)
 - 7.Z.14. Outdoor areas
 - 7.Z.15. Matching the birds and the housing and production system (7.Z.6.)
 - 7.Z.16. Personnel competency (7.Z.27.)
 - 7.Z.17. Inspection and handling (7.Z.28.)
 - 7.Z.18. Nutrition (7.Z.8.)
 - 7.Z.19. Air quality (7.Z.15.)
 - 7.Z.20. Thermal environment (7.Z.15.)
 - 7.Z.21. Lighting (7.Z.17)
 - 7.Z.22. Prevention and control of injurious feather pecking and cannibalism (7.Z.19.)
 - 7.Z.23. Moulting (7.Z.20.)
 - 7.Z.24. Noise (7.Z.18.)
 - 7.Z.25. Biosecurity (7.Z.23.)
 - 7.Z.26. Animal health management, preventive medicine and veterinary treatment (7.Z.22.)
 - 7.Z.27. Painful interventions (7.Z.21.)
 - 7.Z.28. Humane killing of individual birds or flocks (7.Z.24.)
 - 7.Z.29. Depopulation of pullet and laying hens facilities (7.Z.25.)
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de la Santé
Animale

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for Animal
Health

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Mundial
de Sanidad
Animal

Annex 23

Original: English
August 2018

**OIE AD HOC GROUP ON KILLING METHODS FOR FARMED REPTILES
FOR THEIR SKINS, MEAT AND OTHER PRODUCTS
ELECTRONIC REVIEW AND TELECONFERENCE**

Paris, August 2018

1. Welcome and introduction

The OIE *ad hoc* Group on Killing methods for farmed reptiles for their skins, meat and other products (the *ad hoc* Group) conducted a review, electronically, of the draft chapter to consider Member Countries' comments and finalised its review via a teleconference on 30th August 2018.

The electronic work was coordinated by the OIE Headquarters.

The members of the *ad hoc* Group and other participants who participated in the review of the working document are listed at [Annex I](#).

The agenda for the electronic review and the teleconference is presented as [Annex II](#).

During the electronic review and the teleconference Dr William Karesh, chair of the *ad hoc* Group, thanked the members of the *ad hoc* Group for their dedicated work, and the Member Countries and organisations for sending constructive comments.

Dr Leopoldo Stuardo, Chargé de mission of the Standards Department, thanked the *ad hoc* Group, on behalf of the Director General, for their commitment to work with the OIE on this important topic.

The teleconference was dedicated to discussing the comments in which there were differing points of view during the electronic review process. Due to time constraints Leisha Hewitt, Mathias Lörtscher, Paolo Martelli, Christopher Foggin and Slamet Raharjo, could not participate in the teleconference, but they provided their comments electronically beforehand.

2. Review of Member Countries comments on the draft chapter on killing methods for farmed reptiles for their skins, meat and other products

The *ad hoc* Group proposed a revised draft Chapter 7.Y. included as [Annex III](#) for consideration by the Code Commission at its February 2018 meeting.

Comments were received from Argentina, Australia, Canada, China (People Republic of), New Zealand, Norway, Switzerland, United States of America, European Union, African Union Inter-African Bureau for Animal Resources and the International Coalition for Animal Welfare.

During the drafting of this chapter and in response to several Member Countries' comments, the *ad hoc* Group also proposed a number of changes throughout the text to improve grammar, syntax, clarity and the translation in the Spanish version.

General comments

The *ad hoc* Group noted several other Member Countries' comments supporting the development of this chapter and encouraging the OIE to adopt it at the next General Session in May 2019.

Annex 23 (contd)

The *ad hoc* Group did not agree with the general comment of a Member Country proposing the use of tables in the structure of the draft chapter. This was previously addressed by the *ad hoc* Group, in that the readability of tables had been difficult for some Member Countries. The Secretariat also recalled that Chapter 7.5. on Slaughter of Animals is in the process of revision by another OIE *ad hoc* Group and that the tables would not necessarily be kept in the revised structure of the chapter.

The *ad hoc* Group agreed with the comment of a Member Country to review and modify the text for consistency in the use of the word, 'reptiles', when relevant.

Article 7.Y.2.

The *ad hoc* Group agreed with a Member Country's comment to include the source of the animals in a separate article, which will become the new Article 7.Y.4, as this important aspect is considered an environmental and species conservation topic, and not an animal welfare issue.

Article 7.Y.3.

The *ad hoc* Group partially agreed with the comment of a Member Country to include the restraint aspects in the first sentence, of the first paragraph of Article 7.Y.3., but they proposed to remove it from the additional description in the second part of the paragraph, to improve readability. The *ad hoc* Group also replaced the word 'specific' with 'various' at the initial part of the paragraph to improve clarity.

The *ad hoc* Group did not agree with the proposal of a Member Country to include 'Species of animal' when choosing the appropriate stunning and killing method, in particular, with venomous animals, as the *ad hoc* Group considered this aspect was already covered in the section referring to the safety of the animal handlers.

1. Animal welfare plan

The *ad hoc* Group did not agree with the proposal of an Organisation to include housing and care aspects, as the chapter is about the humane killing and not the husbandry of reptiles.

2. Competency and training of personnel

Regarding the proposal of a Member Country to replace 'monitoring' with 'verifying', the *ad hoc* Group partially agreed with this proposal and kept the monitoring concept, as 'verification' refers to checking an individual, while monitoring suggests on-going confirmation of the process. Therefore, both are important activities to conduct.

The *ad hoc* Group agreed with the proposal of some Member Countries and an Organisation to add wording to note the importance of recognising the different reptile species, as this would help handlers to consider species-specific issues when taking action in relation to their handling and stunning or killing process.

Regarding the proposal of a Member Country to include the concept of 'training' in relation to personnel, the *ad hoc* Group agreed with the importance of this aspect but modified the order where it appears in the draft text.

The *ad hoc* Group did not agree with a comment of a Member Country to include reference to the frequency of the need to verify the competence of the personnel. The *ad hoc* Group believed the proposal did not add value to the sentence, furthermore leaving it as is confirms that verification of competency is an on-going process rather than a planned event.

3. Source of animals (new Article 7.Y.4.)

The *ad hoc* Group did not agree with the proposal of a Member Country to change the subtitle to include wild-caught animals. The *ad hoc* Group considered that sourcing includes reptiles raised in captivity still needing to be acquired legally. Nevertheless, the *ad hoc* Group agreed with Member Countries comments to move the section on the source of the animals to a new Article 7.Y.4., after the General Considerations. Finally, the *ad hoc* Group also made a slight modification to the title of the new article to include a reference to the importance of maintaining good welfare conditions during the transport of the reptiles.

Regarding the proposal from an Organisation to include the national legislation of the importing and exporting countries when acquiring reptiles, the *ad hoc* Group agreed with the proposal and included this aspect in the draft text. The *ad hoc* Group also considered that if illegal activities are going to be assumed, then there may also be a source and intermediate destination countries that are not the exporter or importer of record and added some new wording to the text to cover this possibility.

The *ad hoc* Group did not agree with the comment of a Member Country to include in the source of the reptiles a reference to farmed and captive wild reptiles, as it considered that it did not add clarity to the paragraph.

The *ad hoc* Group agreed with the proposal of some Member Countries that capture and transport conditions should be applied to both farmed and captive wild and wild reptiles and modified the text accordingly at the beginning of the third paragraph of this section.

4. Behaviour

Regarding the comment of some Member Countries to give more clarity to the content of the behavioural aspects, the *ad hoc* Group agreed to modify the subtitle referring to behaviour.

The *ad hoc* Group agreed with a Member Country comment that handling, restraining, stunning and killing should be grouped together, and modified the text accordingly.

The *ad hoc* Group agreed to include the olfactory stimuli to which reptiles can have a response as some scientific evidence shows that reptiles have an olfactory system, well developed, particularly in squamate reptiles. Therefore, they could react to the presence of smells by modifying their behaviour.

The *ad hoc* Group agreed with the proposal of an Organisation to modify the fourth bullet point of this article to clarify that there are other causes of slow metabolic rates in addition to low body temperature.

The *ad hoc* Group agreed with an Organisation to replace the words ‘common or normal’ with ‘typical’ to improve the readability of the last bullet point of this section referring to the absence of vocalisation.

Regarding the proposal of an Organisation to include a new bullet point to emphasise that some species-specific behaviours indicate fear, pain and distress. The *ad hoc* Group partially agreed with the proposal and include the proposed text in the introductory part of this section.

Article 7.Y.4. (New Article 7.Y.5.)

Considering the comment of a Member Country to use ‘reversible’ when qualifying a stunning method, the *ad hoc* Group considered revising the original text to avoid using terms such as ‘reversible’ and ‘irreversible’ as they could lead to different interpretations. The *ad hoc* Group suggested rewording the first paragraph clarifying that the process should involve either stunning followed by a killing method or direct killing method.

The *ad hoc* Group agreed with Member Country comments to take out the ‘cost of the method’ from the bullet points. Nevertheless, the *ad hoc* Group proposed to include a short sentence at the end of this section, as even if the cost of the method is not an animal welfare issue, it could indirectly have an important impact on the animal welfare outcomes.

Annex 23 (contd)

The *ad hoc* Group agreed with an Organisation to include ‘pain’ as one of the aspects to be avoided during the killing process.

In response to a Member Country comment regarding the similarities of the last two bullet points, on how to conduct the killing process, the *ad hoc* Group restructured the three last bullet points to improve their readability.

Article 7.Y.5. (New Article 7.Y.6.)

The *ad hoc* Group agreed with the proposal of a Member Country to replace the word ‘establishment’ with ‘verification’ in the second paragraph of this article, as it improves the clarity of the text.

In response to a Member Country comment which required a clearer explanation on the criteria to measure the effectiveness of stunning and killing methods, the *ad hoc* Group added the word ‘objects’ to clarify that this, in the line of sight, produces the pupilar response.

Regarding the comment of a Member Country to include an exemption for crocodylians concerning the jaw tone as an indicator measure of the effectiveness of stunning and killing methods, the *ad hoc* Group agreed to include it, as crocodylians maintain some jaw tone even after decapitation.

In response to the comments of two Member Countries about using heartbeat as an indicator of death, the *ad hoc* Group reworded the sentence to clarify that cardiac activity as the sole indicator should not be used to evaluate whether the reptile is dead. The *ad hoc* Group also agreed to remove the last phrase of the text to improve readability.

Article 7.Y.6. (New Article 7.Y.7.)

Concerning an Organisation suggestion to include a new bullet point on the requirements for an adequate restraint method, the *ad hoc* Group did not agree with the proposal. The *ad hoc* Group considered that is not feasible to measure this parameter in a slaughterhouse context, and also because this is considered as an outcome to be achieved by using all the procedures mentioned.

Regarding the proposal of an Organisation to cover all potential injuries during the stunning and killing process and allow only for those necessary to quickly and humanely stun and kill the reptile, the *ad hoc* Group agreed to add a new bullet point at the end of this section to better cover this aspect.

The *ad hoc* Group agreed with the comments of Member Countries that is important to consider that in the phase of restraint reptiles can still experience pain if pulled or probed in sensitive parts of their body. Nevertheless, the *ad hoc* Group did not modify the point as it was already considered as a new paragraph in the section covering the “Procedures or practices unacceptable on animal welfare grounds”.

Regarding the comment of a Member Country in relation to the limited capacities for vocalization of reptiles, the *ad hoc* Group included the word ‘excessive’, to clarify this is the condition that should be looked for as an indicator.

Article 7.Y.7. (New Article 7.Y.8.)

The *ad hoc* Group agreed with an Organisation to include ‘pain’ as one of the aspects to be avoided during the stunning and killing process.

The *ad hoc* Group agreed with some Member Countries to replace the word ‘excitement’ with ‘agitation’ for consistency with the use of this concept throughout the draft text.

Article 7.Y.8. (New Article 7.Y.9.)

The *ad hoc* Group did not agree with the proposal of a Member Country to add a sentence in regard to differentiating a stunned reptile from an immobilized one as stunning is a completely different concept of immobilization.

The *ad hoc* Group agreed with the suggestion of a Member Country to add a reference to some variables to consider when using electrical stunning to harmonise this article with other methods mentioned in this draft (e.g. captive bolt method).

The *ad hoc* Group agreed with Member Countries comments to include an additional recommendation for the effective use of the electrical stunning method in crocodylians.

Article 7.Y.10. (New Article 7.Y.11.)

The *ad hoc* Group agreed with the comment of an Organisation to add more information concerning the different sizes of reptiles in which non-penetrating captive bolt can be used.

Regarding the proposal of an Organisation to add a new bullet point concerning the importance of the selection of the equipment and its maintenance, the *ad hoc* Group agreed with the proposal to modify the draft accordingly.

Article 7.Y.11. (New Article 7.Y.12.)

The *ad hoc* Group agreed with some Member Countries to add a new sentence to highlight the importance of the anatomical differences between reptiles when using a percussive blow to the head because of the thickness of the braincase. Nevertheless, the *ad hoc* Group did not agree to mention any specific species of reptile.

The *ad hoc* Group did not agree to add two new bullet points to indicate the maximum live weight and the number of reptiles to be managed, as these considerations are already mentioned in Article 7.Y.3. in the second section for all procedures covered in the chapter.

The *ad hoc* Group did not agree with the comments of an Organisation to include a specific recommendation for crocodylians about the thickness of the braincase, as this article covers all reptiles and a percussive blow to the head is extremely effective for many species in line with the four recommendations mentioned in this section.

Article 7.Y.13. (New Article 7.Y.14.)

In response to the question from Member Countries on why pithing could promote animal welfare, the *ad hoc* Group indicated that immediate pithing in an unconscious reptile is considered as an important adjunct to ensure animal welfare.

Article 7.Y.14. (New Article 7.Y.15.)

The *ad hoc* Group did not agree with the proposal of a Member Country to delete the reference regarding the need to only use decapitation in stunned and unconscious reptiles. The *ad hoc* Group recalled it had mentioned in its previous reports, pithing *per se* requires a considerable degree of handling and performance precision and should not be regarded as an acceptable adjunct for conscious animals – hence the well discussed and agreed caution and requirement to ensure that decapitation of any reptile is preceded by unconsciousness. Also, for many species, it is impractical due to the difficulties of removing some cervical vertebrae that are protected by supracaudal processes. In addition, time between decapitation and pithing is likely to be highly variable according to species, animal size and handler, and this period, even if apparently short to the observer, implies severe pain and stress for the animal, and therefore the Member Country suggestion runs counter to the welfare-oriented assurances of the draft chapter.

Annex 23 (contd)

Article 7.Y.15. (New Article 7.Y.16.)

In response to the proposal of a Member Country to add a reference to the species and size of the reptile when using a chemical agent, the *ad hoc* Group agreed with this proposal as the parameters mentioned are important to find the most appropriate product and dosage to be used.

Article 7.Y.16. (New Article 7.Y.17.)

The *ad hoc* Group noted the comment from a Member Country that the OIE should consider the implications of identifying unacceptable stunning and killing methods in reptiles that could be transferred to standards for fish welfare. The *ad hoc* Group recommended the OIE share this point of view with the Aquatic Animals Commission.

The *ad hoc* Group did not agree with the addition of the word “inhumane” and reiterated that there is no room for misinterpretation of the words “inappropriate” or “unacceptable” for the purposes of this article and the chapter. The *ad hoc* Group recalled that words ‘humane’ or ‘inhumane’ have been avoided in this chapter, and they had not been tasked to delve into the philosophical implications of terminology related to the killing of animals.

3. Programme for further work after the teleconference

The *ad hoc* Group was informed that the report of the electronic review and the teleconference, including the amended draft chapter, will be presented to the September 2018 meeting of the Code Commission. The OIE Headquarters will contact the Members of the *ad hoc* Group if additional work is required in the future.

4. Draft a report of the *ad hoc* Group meeting

The *ad hoc* Group agreed to complete their meeting report by early September 2018 for submission to the September 2018 meeting of the Code Commission.

5. Other business

There was no other business proposed for discussion.

.../Appendices

**OIE AD HOC GROUP ON KILLING METHODS FOR FARMED REPTILES
FOR THEIR SKINS, MEAT AND OTHER PRODUCTS
ELECTRONIC REVIEW AND TELECONFERENCE**

August 2018

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**OIE AD HOC GROUP ON KILLING METHODS FOR FARMED REPTILES
FOR THEIR SKINS, MEAT AND OTHER PRODUCTS
ELECTRONIC REVIEW AND TELECONFERENCE**

August 2018

Adopted agenda

1. Welcome and introduction.
 2. Consider Member Countries' comments on draft Chapter 7.Y. 'Killing of reptiles for their skins, meat and other products' and amend text as appropriate.
 3. Programme for further work of the *ad hoc* Group.
 4. Draft a report of the *ad hoc* Group electronic review and teleconference.
 5. Other business.
-

Annex 23 (contd)

Appendix III

[Note: this Annex has been replaced by Annex 10 to the report of the meeting of the OIE Terrestrial Animal Health Standards Commission which was held on 11–20 September 2018.]



Organisation
Mondiale
de la Santé
Animale

World
Organisation
for Animal
Health

Organización
Mundial
de Sanidad
Animal

Annex 24

Original: English

January 2018

REPORT OF THE AD HOC GROUP ON VETERINARY LEGISLATION

Paris, OIE Headquarters, 23–25 January 2018

Report: Dr Howard Batho, VLSP/PVS Pathway expert and Chair of the *ad hoc* Group
Working versions of Chapter 3.4., Questionnaire and Brochure: Dr David Sherman, VLSP Coordinator
Minutes: Ms Camille Loi, VLSP Assistant

Dr Howard Batho, VLSP/PVS Pathway expert, and Dr David Sherman, Coordinator of the Veterinary Legislation Support Programme (VLSP) welcomed participants to the OIE *ad hoc* Group (*ad hoc* Group) on veterinary legislation.

The adopted agenda and the participants are listed in Annexes I and II. The Group was chaired by Dr Howard Batho. Apologies had been received from Ms Ambra Gobena, who was not able to participate but provided Dr Sherman with her comments on the VLSP Questionnaire to support the review planned in the agenda.

The following documents and links were made available in advance of the meeting:

- VLSP Questionnaire (parts 1 and 2, and advisory notes)
- [OIE Biological Threat Reduction Strategy](#)
- [OIE Guidelines on Disaster Management and Risk Reduction in Relation to Animal Health and Welfare and Veterinary Public Health](#)
- [The Biological Weapons Convention](#)
- [Resolution 1540 of the UN Security Council](#)
- [Vertic Legislative Guide to National Implementation of UN Security Council Resolution 1540](#)
- [ICRC and Vertic A Model Law: The Biological and Toxin Weapons Crimes Act](#)
- [Vertic Regulatory Guidelines for National Implementation of the 1972 Biological and Toxin Weapons Convention and Related Requirements of UN Security Council Resolution 1540](#)
- [A Sample Act for National Implementation of the 1972 Biological and Toxin Weapons Convention and Related Requirements of UN Security Council Resolution 1540](#)

1. Welcoming remarks

Dr Monique Eloit, OIE Director General, welcomed the members of the *ad hoc* Group. She reminded them to **differentiate the objectives from the means** when they review Chapter 3.4 on Veterinary Legislation of the OIE *Terrestrial Code* (hereinafter referred to as *Code*) to determine if the legislation basis for biological threat reduction (BTR) in the veterinary domain could be better clarified: the *Code* should include elements which fall in the scope of standards only, without too much detail, creating awareness of the obligations to address the issue of biological threats without being prescriptive on how to do so. Therefore, the *ad hoc* Group members would need to find the right balance between the adjustments needed in the *Code* and elements that could be developed in separate guidelines.

Annex 24 (contd)

The OIE Director General took this opportunity to introduce Dr Karen Bucher, OIE Chargée de mission in charge of the creation of an “OIE Observatory”, a project intended to serve as a tool to monitor progress and constraints faced by OIE Member Countries (“OIE Members”) in the implementation of the OIE standards. The participation of Dr Bucher in the *ad hoc* Group meeting would enable her to get some reflection for the design of the Observatory, which should aim at: exploring the manner and extent to which OIE Members take into account OIE standards in their veterinary legislation and decision-making in particular for international trade; determining the relevance, effectiveness and practicability of OIE standards to Members in order to propose solutions to Members. The expected outcomes would be: more effective implementation of OIE standards and support to the OIE to develop a more strategic focus to its capacity building activities.

2. Introductory presentations

Dr Sherman presented a brief history of the *ad hoc* Group on Veterinary Legislation and the VLSP. Chronology is summarised below.

- PVS Evaluation missions having revealed deficiencies in the veterinary legislation of OIE Members from the start, the VLSP was initiated in 2008, with pilot missions undertaken from 2007.
- In 2009, at Members’ request, the OIE developed *Guidelines on Veterinary Legislation*, identifying the essential elements that should be covered by legislation to meet OIE standards.
- In 2010, the first OIE Global Conference on Veterinary Legislation was held in Djerba, Tunisia, and recommended that the OIE propose the adoption of these *Guidelines* as standards in the OIE *Code*.
- In response to this recommendation, OIE convened an *ad hoc* Group on Veterinary Legislation to develop the draft chapter on veterinary legislation. First meetings of the Group were held in July 2011, January and September 2012, and April 2013.
- The draft chapter on veterinary legislation was unanimously adopted by the World Assembly of Delegates at the 80th OIE General Session in May 2012 and updates adopted at the 81st General Session in May 2013. It is now Chapter 3.4. of the *Code*.

Dr Sherman presented also the Canada Biothreat Project “OIE Veterinary Legislation Support Programme in the Americas”, summarised below:

Following the Global Conference on Biological Threat Reduction organised at OIE Headquarters in June 2015, the Government of Canada, through its Global Partnership Program (GPP) in the Ministry of Foreign Affairs, Trade and Development, awarded a grant to the OIE to implement this project. The purpose of it is to strengthen health security and improve the preparedness of nations for biological threat reduction by enhancing the veterinary legislative basis in countries of the Americas: Canada requested that the OIE focus its efforts through this project on the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) Member Countries.

Key activities identified in the project are the following:

- A Training of OIE VLSP experts on biological threat legislation (December 2016)
- Pilot VLSP Identification missions on biological threat legislation: Belize (2016), Panama (2017), Guatemala (2018)
- A Workshop on Legislation and Biological Threat Reduction for OIRSA Member Countries (June 2017)
- An *ad hoc* Group on veterinary legislation focused on BTR (the *ad hoc* Group reported here - January 2018)

Annex 24 (contd)

The legislative framework for biological threat reduction was then introduced by Dr Sonia Drobysz, Senior Legal Officer at the Verification Research, Training and Information Centre (Vertic). She notably presented:

- The background and main provisions of the 1972 Biological and Toxin Weapons Convention (BWC) and of the UN Security Council Resolution 1540 (UNSCR 1540, 2004) and national laws.
- The different type of provisions that need to be included in national legislation.
- The definitions of “biological weapons”, “biological agent” and “toxin”.
- The Vertic Tools, notably the BWC fact sheets, legislation database, model legislation and online drafting assistant.

During Dr Drobysz’s presentation, the *ad hoc* Group members noted the importance of raising awareness within Veterinary Services on the existence of national points of contact to the BWC’s Implementation Support Unit (ISU) –and on the relevance to liaise with them. Indeed, among the roles of the BWC’s ISU, located in Geneva, Switzerland are: to promote the universalisation of the BWC; to serve as a focal point for the exchange of information on national implementation measures; and, to act as a clearinghouse for assistance requests and offers. Among the provisions that need to be included in national legislation, one concerns the identification of such national points of contact.

It was also interesting to note that the UNSCR 1540, like for the OIE *Code*, focuses on the obligations and the objectives, but does not detail the means to reach them.

3. Review of the Chapter 3.4 of the OIE *Terrestrial Code*

The second part of Day 1 focused on the review of the quality and usefulness of current Chapter 3.4. on Veterinary Legislation of the OIE *Terrestrial Code* which was developed in 2011-2012 by the OIE *ad hoc* Group on Veterinary Legislation and approved at the 80th General Session . Objectives of this review were twofold:

- evaluate its continued suitability, in general, and as the basis for conducting VLSP Identification Missions (VLIM) and supporting development of new legislation under VLSP legislation Agreements; and,
- review the text to determine if the legislation basis for BTR in the veterinary domain could be better clarified.

Ad hoc Group members reviewed the Chapter focusing on elements falling in the scope of standards, as required by the OIE Director General in her opening remarks: they identified several opportunities to include wording that created legal obligations to address the risk of biological threats and several instances to introduce wording that raised awareness concerning biological threats –while leaving the details of implementation to the countries themselves.

Dr Sherman reported an instance wherein an OIE Delegate had expressed to him that, considering their busy agenda, Delegates had no reason to treat BTR as a priority issue if it was not included in the *Code*. As other Delegates may share this opinion, Dr Sherman emphasized that including reference to BTR in Chapter 3.4. is therefore important.

The details of the review and proposals of the *ad hoc* Group members were incorporated into a working version of the revised Chapter 3.4. (Annex III - a). The rationales for the proposed revisions to Chapter 3.4. are provided in Annex III – b).

The inclusion of BTR in this Chapter raised the question of having a separate section dedicated to BTR in the Chapter or merging BTR provisions within the current Chapter. It was recalled however that the OIE Director General is not in favour of creating a specific chapter on BTR in the *Code* itself.

Annex 24 (contd)

The same issue exists regarding the VLSP Questionnaire and the reports of the VLSP veterinary legislation Identification missions with a specific focus on BTR (“VLIM-BTR missions”). Regarding these reports, two formats were tested during the pilot VLIM-BTR missions mentioned above: in Belize, a separate report on BTR in addition to the standard report; in Panama, one single merged report. The first experience turned out to be more positive in terms of accessing the BTR specific information and preserving the integrity of the general mission report. *ad hoc* Group members were informed that the first option of a separate biothreat report (or “annex”) would be preferred for future VLIM-BTR missions.

The risk of providing legislation models to the country was mentioned: Dr Drobysz argued that, despite Vertic templates being available online, countries need the support of Vertic experts to tailor these templates to their individual conditions.

Further, it was suggested:

- to introduce biosafety/biosecurity into the figure of the veterinary domain to raise awareness of where it is important (e.g., laboratories, processing facilities, farms) (see Fig. 1) –this figure being often used during PVS Pathway/VLSP missions and in presentations made by OIE staff;
- to expand the introduction of the Chapter 3.4. or/and add a footnote stating that the provisions apply to the aquatic domain;
- to expand the introduction of the Chapter 3.4. to explain the context of legislation in this Chapter – however it was remarked that the audience of the *Code* is presumed to already know this information;
- to share with FAO the OIE guidance document for expert to conduct VLIM-BTR missions, proposing FAO to share its similar guidance document on antimicrobial resistance (AMR) in order to harmonise the approach to veterinary legislation by both organisations.

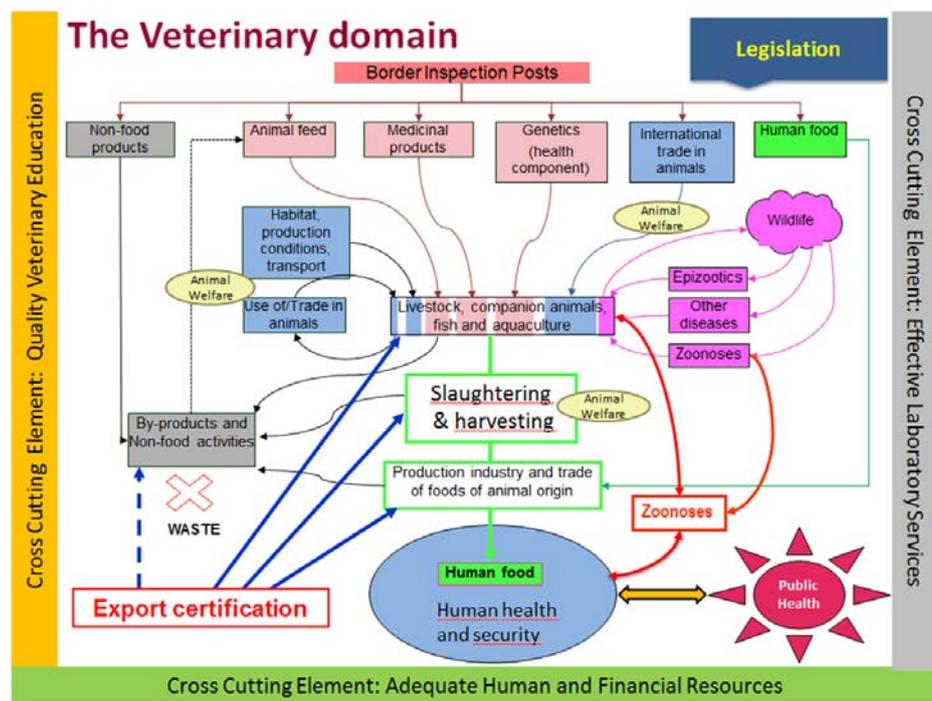


Fig. 1 - The Veterinary domain

Annex 24 (contd)

Finally, for VLIM-BTR missions, it was agreed to develop:

- the guidance document for experts to conduct these missions;
- a specific template for the BTR report (or “BTR annex”) attached to the standard report.

Dr Sherman announced that the proposed revisions of the Chapter 3.4. (along with this report of the *ad hoc* Group) would be provided to the Terrestrial Animal Health Standards Commission (the “Code Commission”) for consideration at its meeting in September 2018. It was agreed that the version drafted during this *ad hoc* Group meeting would have to be completed by comments/explanations before being presented, and that the *ad hoc* Group members would provide additional support for this purpose.

The review of the Chapter 3.4 ended on the Day 2 morning.

4. Review of the VLSP Questionnaire

The rest of Day 2 and a part of Day 3 were dedicated to the integration of questions on BTR into the VLSP Questionnaire (Part I and II) that is utilised during VLIM to identify gaps in a country’s existing veterinary legislation. It was mentioned that questions relating to AMR may be included in the same way in due course.

It was also the opportunity to review the Questionnaire with the aim of improving it with regard to its general use during VLIM. The need for such improvements was based on the inputs of the VLSP experts, made notably during the VLSP Expert Feedback Session held on 8 December 2016 in Paris, France, back-to-back with the Veterinary Legislation Support Programme (VLSP) Expert Training Seminar on Legislation and Biological Threat Reduction.

Experts’ comments and suggestions were all interesting and helpful. Some being contradictory, however, they could not be all accommodated, thus Dr Sherman, as the VLSP Coordinator, with the support of the *ad hoc* Group members, had to arbitrate.

Regarding the inclusion of BTR-specific content in the Questionnaire, it was agreed that:

- There was more flexibility to include BTR content in the Questionnaire than in Chapter 3.4 because the Questionnaire is a fact-finding tool and not a standards document. After discussion among the *ad hoc* Group members, it was agreed to approach the issue in two ways – first to include biothreat-specific wording within the existing Questionnaire in appropriate sections (such as laboratories and disease control) to raise awareness about the need for veterinary legislation to address BTR. This content would be integrated into the Questionnaire for use in all VLIM. Second, was to add an additional section on BTR at the end of the Questionnaire Part II (new section 10) to include questions concerning BTR that would be utilised only during VLIM-BTR missions.

Regarding the generic legislation assessment, it was agreed that:

- The Questionnaire could be modified and not mirror the Chapter 3.4 exactly, even if it currently corresponds to the Chapter 3.4. Consequently, the revised version of the Questionnaire could be used before the Code Commission approves the *ad hoc* Group proposals on the Chapter 3.4.
- “The simpler the better”: the level of detail useful for the Questionnaire should be chosen regarding its relevance for assessment as well to make it more understandable for the Delegates. It would be then the role of VLSP experts, during the missions, to dig further according to Chapter 3.4.
- The Questionnaire should be attached to the letter acknowledging receipt of the country official request for a VLIM.

Annex 24 (contd)

- Retaining the Questionnaire as part of the VLIM report enabled the readers used to this report format to find key information rapidly. It was also agreed that it was very useful to complete the mission report.
- Spending several days –as it is often the case –of the mission on finalising the Questionnaire leaves much less time for addressing other aspects necessary to complete the report. Even if the Questionnaire was provided earlier to the country, it would not change the fact that it will require some time to be reviewed and completed during the mission itself. The main solution is to simplify the questions, in order to decrease the frustration of the country and experts.
- The “Question 5” (Q5 of Part I), was deemed to be too complicated and should be deleted. As the original intent of Q5 was to identify the Competent Authority responsible for each of the various laws associated with different aspects of the veterinary domain, it was agreed that Q5 could be replaced by a simple legislation list that the country should provide in advance of the VLIM that included the responsible authority for each law. Dr Sherman would develop a template for such a list with the support of Ms Loi.
- Broad, open and ambiguous questions should be avoided.

During this second day of the *ad hoc* Group meeting, Dr François Caya, Head of the Regional Activities Department, and Dr John Stratton, Deputy Head, came to greet the *ad hoc* Group members and introduce Dr Stratton, who had not been met by some of the experts.

Dr Caya took this opportunity to highlight that in the “evolved PVS Pathway” (being developed following the PVS Pathway Think Tank Forum held in April 2017 at OIE Headquarters), legislation will be part of the “targeted support” (replacing the term of “treatment”).

Because of the length of the Questionnaire, the revised version is not included as part of this report but is available on request.

5. Review of a draft “BTR brochure” for OIE Delegates

On Day 3 the *ad hoc* Group members reviewed a draft brochure for OIE Delegates on the importance of a sound legal framework for effective control of biological threats in the veterinary domain.

A first working version of the brochure, drafted by Dr Sherman with the support of Ms Loi, had been sent to the members before the meeting for comments and suggestions, and further discussion during the *ad hoc* Group.

The details of the review and proposals made by the *ad hoc* Group members had been incorporated into the draft by Dr Sherman (Annex IV).

It was agreed to:

- keep the brochure concise and focus on the communication aspect of the brochure: objective being to orient the Delegates’ perspective;
- focus on deliberate misuse of a biological agent or toxin, even if the OIE Biological Threat Strategy focuses both on accidental and intentional misuse.
- insist on laboratory security and also on security in the field (on farms);
- contact Dr Jennifer Lasley, Project Coordinator at the OIE Programmes Department, in order to investigate if the BTR assessment, or part thereof, could be included in the *PVS Laboratory Tool*.

Annex 24 (contd)

It was suggested to:

- include side bars (e.g. for examples) or images in the brochure. Examples that could be used: real case studies (e.g. 2001 anthrax attacks in New York), and/or potential event (e.g. FMD¹ in the USA). Dr Sherman agreed to draft a sample sidebar for the consideration of the *ad hoc* Group.

Finally, Dr Batho indicated that it was not clear in the brochure if OIE Delegates interested in requesting a VLIM-BTR mission could make a request to the OIE Director General even if a standard Identification Mission had already been conducted in their countries. Dr Sherman answered that the OIE had not defined a position on this subject for the moment and would therefore study any request on a case-by-case basis, depending on funds available. However, if a standard Identification mission had already been conducted and a VLIM-BTR mission was organised, it would focus more heavily on BTR.

Following the meeting the draft brochure will be sent to the members of the *ad hoc* Group for comments, before being finalised. The means of distribution to the OIE Delegates will be defined at a later stage.

As mentioned above, during Day 3 the Questionnaire review continued. It was decided to give priority to the brochure first, so BTR experts could leave, and then the *ad hoc* Group would focus on the generic issues of the Questionnaire.

6. Closing remarks

Dr Sherman reminded that the support of *ad hoc* Group members would be required to finalise the work on the Chapter 3.4. of the *Code*, the VLSP Questionnaire and the BTR brochure for OIE Delegates. Following the *ad hoc* Group, Dr Sherman will complete the working versions of these documents first, before sending them to the members.

The importance of keeping all the track changes (from the initial ones to the final ones) on the same working versions was stressed, in order to facilitate harmonisation and translation of French and Spanish versions.

Finally, the list below, representing collateral ideas that arose during the AHD deliberations, was captured for future consideration. Notably, it includes some points where alteration of Chapter 3.4. might suggest the need to consider changes elsewhere in the *Code* as well:

- Biosecurity definition: OIE vs others;
- Introduction of the *Code*;
- Definition of biologicals;
- Broaden definition of “laboratory” in the *Code*;
- Chapter 6.1. of the *Code*: include reference to risk of introduction;
- Consider biosecurity issues in the field including samples, transfers...;
- Consistent use of terms Veterinary Services vs Veterinary Authority in the *Code*;
- Definition of veterinary medicine / surgery;
- Proposal to include reference to BWC and UNSCR 1540 in the OIE Biological Threat Strategy.

Drs Batho and Sherman thanked the members for their fruitful participation in the *ad hoc* Group.

.../Annexes

¹ FMD: Foot-and-mouth disease.

Annex 24 (contd)Annex I

**AD HOC GROUP ON VETERINARY LEGISLATION
OIE VETERINARY LEGISLATION SUPPORT PROGRAMME IN THE AMERICAS
23-25 January 2018**

Agenda

DAY 1: 23 January 2018

- 09:00 a.m. Welcoming remarks – Dr Monique Eloit, OIE Director General
- Adoption of the agenda – Chair, Dr Howard Batho
- Brief history of the *ad hoc* Group on Veterinary Legislation – Dr David Sherman
- Summary of the Canada Biothreat Project “OIE Veterinary Legislation Support Programme in the Americas” – Dr David Sherman
- The legislative framework for biological threat reduction: the 1972 Biological and Toxin Weapons Convention, the UN Security Council Resolution 1540 (2004) and national laws – Dr Sonia Drobysz
- Review of the quality and usefulness of current Chapter 3.4 on Veterinary Legislation of the OIE *Terrestrial Code* which was developed in 2011-2012 by the OIE *ad hoc* Group on Veterinary Legislation and approved and adopted by the OIE General Assembly in May 2012 in order to:
- evaluate its continued suitability, in general, and as the basis for conducting VLSP veterinary legislation identification missions and supporting development of new legislation under VLSP legislation Agreements; and,
 - review the text to determine if the legislation basis for biological threat reduction in the veterinary domain can be better clarified.
- 04:00 p.m. End of the *ad hoc* Group

DAY 2: 24 January 2018

- 09:00 a.m. Integration of questions on biological threat preparedness into the VLSP Questionnaire that is utilised during VLSP legislation Identification missions to identify gaps in a country’s existing veterinary legislation.
- 6.00 p.m. Restaurant dinner

DAY 3: 25 January 2018

- 09:00 a.m. Review and finalisation of a draft brochure for OIE Delegates on the importance of a sound legal framework for effective control of biological threats in the veterinary domain.
- Closing remarks
- 04:00 p.m. End of the *ad hoc* Group

Coffee breaks and lunch breaks will be included during the three days.

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**AD HOC GROUP ON VETERINARY LEGISLATION
OIE VETERINARY LEGISLATION SUPPORT PROGRAMME IN THE AMERICAS
23–25 January 2018**

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Rationale for proposed revisions to
CHAPTER 3.4.
VETERINARY LEGISLATION

Background

In 2009, at the request of Member Countries, the OIE developed Guidelines on Veterinary Legislation, identifying the essential elements that should be covered by legislation to meet the OIE standards. In December 2010, the OIE held the first Global Conference on Veterinary Legislation in Djerba, Tunisia. A recommendation of that Conference was for the OIE Guidelines on Veterinary Legislation to be adopted as standards in the Terrestrial Code. In 2011, OIE convened an *ad hoc* group (*ad hoc* Group) on Veterinary Legislation to develop a draft Terrestrial Code chapter on veterinary legislation based on the Guidelines which was accomplished. Following required commission reviews and response to Member Country comments, the draft chapter on veterinary legislation was presented for consideration at the 80th OIE General Session in May 2012 and approved for adoption as Chapter 3.4 of the Terrestrial Code. Based on Member Country comments received at the General Session, the *ad hoc* group reconvened to address those comments and the revised version of Chapter 3.4 was adopted in 2013. That version is the current version.

Since its adoption, Chapter 3.4 has served as the basis for conducting OIE Veterinary Legislation Support Programme (VLSP) in which a OIE VSLP certified expert team, comprising a lawyer and a veterinarian, undertake a one-week mission in-country to review the country's veterinary legislation and identify gaps, redundancies and weaknesses relative to Chapter 3.4. In using the Chapter repeatedly and extensively, VLSP experts have identified some areas of ambiguity and inconsistency which they felt should be addressed if the opportunity to review the Chapter arose.

Under the project funded by the Canada Global Partnership Programme entitled 'the OIE Veterinary Legislation Support Programme in the Americas', which focused on veterinary legislation in the context of biological threat reduction, the opportunity arose to reconvene the *ad hoc* group on veterinary legislation. The *ad hoc* group met 23-25 January 2018 at OIE Headquarters.

The objectives of this *ad hoc* group meeting, as approved by the Director General, were:

- to reassess the quality and usefulness of current Chapter 3.4 on Veterinary Legislation of the OIE Terrestrial Code which was developed in 2011-2012 by the OIE *ad hoc* group on veterinary legislation and approved and adopted by the OIE General Assembly in May 2012 in order to:
 - evaluate its continued suitability, in general, and as the basis for conducting VLSP veterinary legislation identification missions and supporting development of new legislation under VLSP legislation Agreements; and,
 - review the text to determine if the legislation basis for biological threat reduction in the veterinary domain can be better clarified;

The deliberations of the *ad hoc* group resulted in a number of proposed changes in Chapter 3.4

Annex 24 (contd)Annex III – b (contd)**Purpose**

In order to assist the Code Commission with its review of the proposed revised Chapter 3.4, the following rationales are provided:

Rationales

Article 3.4.1 paragraph 2. Given the mandate of the *ad hoc* Group to address biological threats in the context of Chapter 3.4, the *ad hoc* Group believed that this opening paragraph of Chapter 3.4, which draws attention to international obligations in veterinary legislation should also draw attention to international obligations relative to biological threats (i.e., the Biological Weapons Convention and UN Security Council Resolution 1540).

Article 3.4.1 paragraph 3. Based on their experience on VLSP missions, VLSP experts on the *ad hoc* Group believed it was valuable to draw attention to the fact that not all legislation impacting the veterinary domain is within the Veterinary Authority and that relevant legislation may exist with other Competent Authorities as field experience suggests that the Veterinary Authority may not be familiar with other relevant legislation

Article 3.4.1 paragraph 4. Wording added to be consistent with paragraph 2 in regard to meeting obligations relative to international instruments.

Article 3.4.2 Definitions. The colon following each term that is defined has been deleted in order to make the style more consistent with the TAHC glossary definitions.

Article 3.4.2 Definition of veterinary domain modified to put the primary focus on animals rather than humans.

Article 3.4.3 sub-article 2, first paragraph. The *ad hoc* Group believed that it was sufficient to identify laws as being applicable to relevant administrative levels without reference to geography, which in fact was felt to introduce some confusion.

Article 3.4.3 sub-article 2, new second paragraph. The *ad hoc* Group noted that, based on expert experience on VLSP missions, many countries fail to produce regulations following enactment of primary legislation. Therefore, the *ad hoc* Group agreed that the importance of doing so should be emphasised as a general principle for legislation.

Article 3.4.3 sub-article 2, third paragraph. The *ad hoc* Group noted that numerous countries may belong to regional economic communities and therefore may be subject to regional laws

Article 3.4.3 sub-article 4, first paragraph. The reference to impact analysis is included to draw attention to the fact that in addition to being scientifically, technically and legally sound, the law must be implementable and achieve its intended purpose, which is the purpose of impact analysis.

Article 3.4.3 sub-article 5, first change. Transparency is dealt with separately in point 3 preceding so is removed here.

Article 3.4.3 sub-article 5, second change. The *ad hoc* Group agreed that to ensure that the legislation is technically relevant, acceptable to society, etc., reference to periodic updating should be included as part of the general principle.

Article 3.4.4 sub-article 1. The *ad hoc* Group noted that the establishment of authorities or power is also important but was overlooked here.

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Article 3.4.4 sub-articles 2 and 3. The *ad hoc* Group noted overlaps in the content of sub-articles 2 and 3 and proposes to combine them into one new sub-article 2. This changes the numbering of the sub-articles that follow.

Article 3.4.4 sub-articles 4 and 5. The *ad hoc* Group believed that there were other issues to address regarding definitions besides ambiguity and that the ambiguity issue related not only to definitions but to provisions in the text as well, hence original item 4 has been expanded and becomes new sub-article 3 with the addition of a new sub-article 4 also related to definitions, and provisions.

Article 3.4.4 sub-article 7. The *ad hoc* Group noted that sub-article 7 was ambiguous as presented. The semi colon has been removed and the word 'or' added to clarify that sub-article 7 was presenting two specific alternatives.

Article 3.4.5 first paragraph. The *ad hoc* Group agreed that legal mandate, capacitation and organisation of the CA should extend beyond, and not be limited to, emergencies, but all matters of concern related to animal health, animal welfare and public health.

Article 3.4.5 second paragraph. The *ad hoc* Group recognised the need to establish responsibility for addressing biological threats (and natural disasters) as an obligation of the relevant Competent Authority and proposes the inclusion of additional wording to that affect.

Article 3.4.5 third paragraph. In light of the inclusion in Article 3.4.5 of the power to delegate tasks related to official activities, the *ad hoc* Group believed that it was more consistent to refer to authorised personnel in addition to officials.

Article 3.4.5 sub-article 1.a. The *ad hoc* Group believed that the existing wording lacked clarity and did not convey a meaningful intent. Alternative wording has been proposed to improve clarity.

Article 3.4.5 sub-article 1.c. Wording adjusted for consistency with the proposed change in Article 3.4.5 third paragraph regarding officials and authorised personnel.

Article 3.4.5 sub-article 1.d.iii. The *ad hoc* Group believed it was important to clarify that these powers represented sanitary measures but not all necessary sanitary measures. Nevertheless, it was deemed important to add reference to add quarantine and movement controls to the list as they are fundamental sanitary measures.

Article 3.4.5 sub-article 2. The *ad hoc* Group believed that the itemized list included in sub-article 2 is essentially a repetition of the elements described in this opening paragraph of the sub-article and was therefore not necessary to include, particularly when the term 'the competencies required' is added to the paragraph for completeness.

Article 3.4.6. Members of the *ad hoc* Group noted serious concerns with Article 3.4.6 related to overall quality of drafting and the clarity of intent. It was pointed out that, in the original text, sub-article 2b appears to duplicate sub-articles 1 a-d. The original text also suggests that the criteria for regulating the professions (sub-article 1 a-d) should be included in law, while sub-article 2b suggests that the power to develop these criteria be delegated to a veterinary statutory body. This appeared as confusing and contradictory to the *ad hoc* Group. The *ad hoc* Group also noted a lack of clarity as to whether OIE expects Member Countries to establish veterinary statutory bodies, as the original text says that powers of regulation of the professions could *possibly* be delegated to a VSB. To address these concerns, it was proposed that the entire article be redrafted to make it clear in the first sub-article that countries should create a veterinary statutory body through legislation and empower the VSB to develop the criteria by which the professions are regulated. In the case that countries choose not to create VSB, then the second sub-article proposes that the criteria for regulating the professions be included in legislation.

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Article 3.4.7 sub-article 1.c. The *ad hoc* Group believed that the wording in this sub-article was not sufficiently clearly to distinguish the nature and activities of laboratories in point c from the other laboratories described in points a and b. The wording has been changed to improve clarity.

Article 3.4.7 final paragraph of sub-article 1. The *ad hoc* Group believed that, in the context of biological threat reduction, this sentence offered a good opportunity to introduce the important concepts of biosafety and biosecurity for laboratories without altering the original intent.

Article 3.4.7 sub-article 2. The *ad hoc* Group believed that the original title here, Reagents, was too limited, as the dictionary definition of reagents is 'a substance or mixture for use in chemical analysis or other reactions'. The expansion of the title to include diagnostic kits and biological agents better represents the reality of what needs to be regulated within a veterinary laboratory and also underscores the need to regulate biological agents in the context of biological threat reduction. Text in sub-article entries 2.a, 2.b and 2.c have been modified to address this change.

Article 3.4.7 new sub-article 3. In the context of the *ad hoc* Group's focus on biological threats, and the importance of laboratory biosecurity, the *ad hoc* Group proposed to add this additional section on Laboratory containment of pathogenic agents to article 3.4.7. It is consistent with information already present in Chapter 5.8 of the TAHC and would not require any alteration of that Chapter.

Article 3.4.8 sub-article 2b. Advised by the Standards Department that the Code Commission is replacing 'cleaning and disinfection' with simply 'disinfection' where the term occurs throughout the Code.

Article 3.4.8 sub-article 3. The *ad hoc* Group believed that the term 'as appropriate' in this sentence was not informative. The interest of the Veterinary Authority in the context of animal reproduction should be specifically focused on health issues, i.e., ensuring that disease is not transmitted through genetic materials. The wording has been changed accordingly.

Article 3.4.8 sub-article 4.a. As in Article 3.4.8 sub-article 3 above, the *ad hoc* Group was concerned that Article 3.4.8 sub-article 4.a was too broad and implied that the Veterinary Authority was responsible for all aspects of animal feed e.g., nutritional quality, labelling. The wording has been revised to indicate that the VA is responsible for regulating animal feed only in the context of ensuring that it is not a vehicle for disease transmission.

Article 3.4.8 sub-article 5.b. The *ad hoc* Group recognised that rules should cover 'transport' as well as the other elements already present.

Article 3.4.9 opening paragraph. In the context of the *ad hoc* Group mandate to review the chapter in the context of biological threats, the *ad hoc* Group agreed that the legal basis for the Competent Authority to manage diseases (which are listed) should be extended to emerging diseases and novel threats (which by their nature cannot be listed because their existence or cause may be unknown). As a result of this addition, the sentence on listing diseases has been separated for clarity of meaning.

Article 3.4.9 sub-article 2.b.iii. In the context of the *ad hoc* Group mandate to review the chapter in the context of biological threats, the *ad hoc* Group believed that contingency plans should include consideration of risks associated with accidental and deliberate introduction of biological threats and the wording here has been changed to reflect this.

Article 3.4.9 sub-article 2c. This additional wording is proposed here to address the reality that in many countries the mechanism for financing animal disease control measures may not be provided through the veterinary legislation but through other existing national funding systems.

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Article 3.4.9 sub-article 3. The *ad hoc* Group proposed to expand this existing provision to investigate and control emerging diseases to include novel threats, in particular the accidental or deliberate introduction of biological agents, using a risk-based approach. This creates awareness of such threats and gives the Veterinary Authority the leeway to act without being prescriptive.

Article 3.4.11. It was realised out that the TAHC glossary includes a definition for *veterinary medicinal products* and that definition is already worded to include veterinary medicines and biologicals. Therefore, to foster consistency throughout the code and to avoid lack of clarity it is proposed that wherever the term 'veterinary medicines and biologicals' appears in Chapter 3.4, it should be replaced by 'veterinary medicinal products'.

Article 3.4.11 sub-article 1.b. The *ad hoc* Group recognized this as another appropriate place to raise awareness about the importance of regulating laboratory biosafety and biosecurity in the context of biological threat reduction, in this case relating to the use of biological agents for vaccine production.

Article 3.4.11 sub-article 2.b. The *ad hoc* Group proposes deletion, realizing that the establishment of drug withdrawal times had nothing to do with the regulation of raw materials and has moved this important item to a more logical location (sub-article 3.b.iii).

Article 3.4.11 sub-article 2.c (now new 2.b). The *ad hoc* Group believed that the term 'requirements for substances' was inappropriate as it sounded as if the sub-article was requiring the substances rather than regulating or restricting them, so the term was changed to 'restrictions on substances'. Also, the *ad hoc* Group proposed additional wording in this sub-article for clarification as the *ad hoc* Group believed that the meaning of the sentence was not especially clear when referring only to 'veterinary checks', a broad and vague term.

Article 3.4.11 new sub-article 3.b.iii. The reference to withdrawal periods was moved here from sub-article 2.b, as the establishment of withdrawal times is a condition of marketing authorisation.

Article 3.4.11 sub-article 3.d.i. The use of the word 'role' lacked clarity. It is the function of the law to assign responsibilities to specific actors to establish accountability and the use of 'responsibility' here rather than 'role' addresses that more clearly.

Article 3.4.11 sub-article 4 deleted. The *ad hoc* Group believed that sub-article 4 was not necessary to include because sub-article 1.b of Article 3.4.11 (General Measures) establishes the legal basis for regulation of manufactured and imported veterinary medicinal products and the details for the conduct of clinical trials would fall under that umbrella. Further many countries would not have the capacity or resources to conduct clinical and would accept products on the basis of equivalency authorisations as covered in the preceding sub-article.

Article 3.4.11 sub-article 5 (formerly 6) c. Reworded to specifically identify veterinarians as distinct from other professionals (e.g., licensed pharmacists) who can engage in commerce of prescription drugs.

Article 3.4.11 sub-article 5 (formerly 6) d. The *ad hoc* Group believed that in the context of AMR, the issue of withdrawal times was important enough to create an obligation for manufacturers to establish withdrawal times as a condition of marketing authorisation in sub-article 3 above but also here to note the obligation for veterinarians and veterinary paraprofessionals to alert end users about withdrawal periods when prescribing or dispensing antimicrobials and for end users to observe withdrawal those withdrawal periods. This is consistent with Chapter 6.9 of the TAHC.

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Article 3.4.12 opening paragraph. In the context of biological threat reduction and the known history of incidents of intentional contamination of food, the *ad hoc* Group proposes additional wording here to raise awareness of the risk of accidental or deliberate contamination events when acting to safeguard the human food production chain.

Article 3.4.12 new sub-article 1.b. Given the importance of veterinary ante- and post-mortem inspection to food safety and the surveillance value of inspection data for the Veterinary Authority, the *ad hoc* Group expressed surprise that veterinary inspection was not explicitly mentioned as a general provision of food safety legislation in Chapter 3.4. Therefore, this new wording is being proposed to create an obligation for the conduct of veterinary ante- and post-mortem inspections.

Article 3.4.12 new sub-article 1.c. As primary production is not defined in the TAHC and there is some debate about when primary production ends, the *ad hoc* Group believed that for the sake of clarity, the obligation for recording all significant animal and public health events should be explicitly applied to primary production and slaughter, consistent with the new reference to ante- and post- mortem inspection in the preceding new sub-article 1.b.

Article 3.4.12 new sub-article 1.e. It is proposed that ‘or’ be changed to ‘and’ to improve clarity here.

Article 3.4.12 new sub-article 1.f. The reference to ‘audit’ has been moved here from sub-article 2 which follows, so it will apply more broadly to all facilities and not just limited to product as originally presented.

Article 3.4.12 sub-articles 2.a and 2.b. These sub-articles were consolidated and moved to the General provisions section above (Article 3.4.12 new sub-article 1.f).

Article 3.4.12 new sub-article 2.a. In the context of ensuring that the legislation addresses health standards during processing of products of animal origin intended for human consumption, the *ad hoc* Group felt believed it was appropriate to be more explicit in this sub-article, highlighting disease control and monitoring of maximum residue limits.

Article 3.4.12 new sub-article 2.b. It is proposed that ‘or’ be changed to ‘and’ to improve clarity.

Article 3.4.13 new second paragraph. In addition to Section 5 of the TAHC, the *ad hoc* Group identified Chapter 2.1 as also being an important reference in regard to risk analysis when developing legislation to provide a basis for actions to address import procedures.

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“BTR brochure” for OIE Delegates

Biological Threats and Veterinary Legislation – A Primer for OIE Delegates

What are biological threats?

The OIE Biological Threat Reduction Strategy defines biological threat (or ‘biothreat’) as the accidental or deliberate release of a pathogen or toxin into a susceptible population². In the case of deliberate misuse, biological threats historically have been associated with state-sponsored biological weapons programmes and, more recently, with criminal and terrorist acts. As the nature of conflict continues to change, non-state actors will continue to explore new attack options, taking advantage of advances in the life sciences and biotechnology that may make it easier to acquire dangerous pathogens, or even produce novel disease agents. Therefore, it is becoming increasingly likely that biological agents and toxins will be used to further the agendas of criminal and terrorist groups. From the perspective of these actors, biological agents may be attractive as weapons because some harmful pathogens are relatively easy to obtain and, due to their infectious nature, can result in broad and rapid dissemination, having a severe impact on human, animal and plant populations, as well as on the economy.

Why should Veterinary Services be concerned?

A key function of Veterinary Services is the detection, control and prevention of infectious diseases in animal populations as well as zoonotic diseases that can spread from animals to humans. Traditionally, the assumption has been that when an infectious disease is noted in animals, it has occurred under natural circumstances. However, in today’s world, the very real possibility exists that infectious disease occurrence may be the result of deliberate introductions of infectious or toxic agents into animal populations. If the agents are zoonotic in nature, humans as well as animals may be affected.

Deliberately caused outbreaks of highly infectious diseases in livestock populations can have enormous economic consequences – affecting jobs, livelihoods, trade and the availability of food. In the case of a zoonotic disease outbreak, the event is likely to further contribute to social unrest and political instability due to heightened concerns about the loss of human life, and, in the event of terrorism, possible further attacks. These are the outcomes desired by criminals and terrorists and the Veterinary Services must be prepared to do their part to prevent the occurrence and limit the impact of such events.

Therefore, Veterinary Services need to be very much aware of not only the risks of natural and accidental disease events but also the deliberate introduction of animal and zoonotic pathogens. They must be ready to respond quickly and effectively and when necessary, in a multisectoral fashion, i.e., coordinating their disease control activities with human health agencies, human and veterinary diagnostic laboratories, and law enforcement and national security agencies, among others. The importance of interagency cooperation is underscored by the facts that 60% of existing human infectious diseases are zoonotic, 75% of the pathogens causing emerging infectious diseases of humans (e.g., Ebola, HIV, and influenza) have an animal origin and as many as 80% of potential bioterrorism agents are zoonotic pathogens.

² From, The OIE Biological Threat Reduction Strategy – Strengthening Global Biological Security, Paris, October 2015, http://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/EN_FINAL_Biothreat_Reduction_Strategy_OCT_2015.pdf

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Veterinary legislation and biological threats

Section 3 of the OIE *Terrestrial Animal Health Code*, entitled 'Quality of Veterinary Services', describes the operating principles and resources that should be in place for national Veterinary Services to function efficiently and effectively, including for the control of disease outbreaks, whether they occur naturally, accidentally or deliberately. Comprehensive, high quality veterinary legislation to support good governance and provide the regulatory framework for all essential activities of the Veterinary Services is a key resource. Such legislation must clearly define the powers and authorities granted to the Veterinary Services in order to effectively ensure public safety and promote the public good.

There are a number of issues related to biological threats which should be addressed in national legislation. In general, the goal of such legislation is to ensure the proper regulation of biological agents and toxins that are kept for legitimate purposes but have the potential to be used for harm (i.e., dual-use³). Such legislation should also regulate the organisations, businesses, agencies and persons that handle them, including veterinary laboratories and their personnel. Equally important is having the power and resources to effectively enforce the laws and regulations aimed at controlling biological threats and punishing those who perpetrate or try to perpetrate them.

Each country will have its own approach to addressing these issues. They will do so in the context of their own legal frameworks, the relevant international laws, including conventions to which they are party, and the legal texts that they have adopted to fulfil their international obligations. Veterinary Services should be aware of and review existing legislation to ensure that they provide the necessary powers and authorities for Veterinary Services to effectively control biological threats within the veterinary domain. In that context, it is useful to review the international legal framework that exists for the control of biological threats.

International legal framework for biological threat reduction

At the international level, there are two key instruments that commit countries to biological threat reduction and which provide the legal basis for control of biological threats. These are the Biological Weapons Convention⁴, which entered into force in 1975, and the United Nations Security Council Resolution 1540, adopted in 2004.

The Biological Weapons Convention (BWC) was the first multilateral disarmament treaty banning an entire category of weapons, covering biological agents, toxins, their means of delivery, and all future scientific and technological developments relevant to the Convention. In brief, States Parties to the BWC commit to the following:

- To never, under any circumstances, acquire, retain or use biological weapons;
- To destroy or divert to peaceful purposes biological weapons and associated resources prior to joining;

³ The term 'dual-use' originally described a technology that could be used for military but also for civilian purposes, e.g. microwaves, internet or satellites. Over time, the use of the term has expanded to describe something that can be used not only for good, but also for malevolent purposes, including in the life sciences.

⁴ Though commonly referred to as the Biological Weapons Convention, the complete name is 'The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction.'

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- To not transfer, or in any way assist, encourage or induce anyone else to acquire or retain biological weapons;
- To take any national measures necessary to implement the provisions of the BWC domestically;
- To consult bilaterally and multilaterally to solve any problems with the implementation of the BWC;
- To request the UN Security Council to investigate alleged breaches of the BWC and to comply with its subsequent decisions;
- To assist States which have been exposed to a danger as a result of a violation of the BWC;
- To do all of the above in a way that encourages the peaceful uses of biological science and technology.

United Nations Security Council Resolution 1540 (UNSCR 1540) obliges all Member States to adopt and enforce legislation to prohibit non-state actors to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons, related materials and their means of delivery. It also obliges Member States to take and enforce effective measures to prevent the proliferation of such weapons and their means of delivery, including by establishing controls over related materials (measures to account for, physically protect, and develop border and transfer controls).

Implementation in national legislation⁵

Each country must adopt, in accordance with its own Constitution and law-making process, appropriate and effective legislation and regulatory measures to carry out and enforce the obligations under the BWC and UNSCR 1540. While such legislation should identify offences and penalties for any misuse of biological agents and toxins by non-state actors, it should also include provisions enabling a State to effectively regulate legitimate activities involving biological agents and toxins.

Depending on the prevailing situation in the country, a State may draft a single new law to address biological threats, or the State may utilize an array of existing and new laws in various relevant sectors, such as anti-terrorism laws, penal codes, criminal procedure codes, public health laws, animal and plant health laws, trade laws and customs laws, among others.

Regardless of the approach, at a minimum, national laws should address a number of key points which are further elaborated in the paragraphs that follow:

- Definitions;
- Offences and penalties;

⁵ The discussion which follows in this section draws considerably from the excellent legislation tools developed by the Verification Research, Training and Information Centre (VERTIC) to assist countries with drafting legislation in compliance with UNSCR 1540 and the BWC, most notably: VERTIC's Legislative Guide to National Implementation of UN Security Council Resolution 1540 (2004); VERTIC's Sample Act for National Implementation of the 1972 Biological and Toxin Weapons Convention and Related Requirements of UN Security Council Resolution 1540; and, VERTIC's Regulatory Guidelines for National Implementation of the 1972 Biological and Toxin Weapons Convention and Related Requirements of UN Security Council Resolution 1540. All are available at http://www.vertic.org/pages/homepage/publications/special-publications.php?searchresult=1&sstring=sample+law#wb_69

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- Jurisdiction;
- Laboratory biosafety and biosecurity;
- Transfer controls;
- Registration and audit of labs or bodies holding listed biological agents and toxins;
- Enforcement and emergency preparedness.

Definitions – National legislation should clearly define relevant terms such as biological weapon, biological threat, biological agent, toxin, non-state actor, and laboratory biosafety and biosecurity, among others.

Offences and penalties – Offences related to the illegal development, production, acquisition, possession, transport, transfer, import/export, storage and use of biological agents and toxins should be clearly set out and the associated penalties stated. Any forms of participation in these offences, for example, attempts, conspiracies, threats and financing should also be criminalized.

Jurisdiction – Legislation should extend the reach of legal prohibitions to natural and legal persons and apply territorially as well as extraterritorially, if allowed by the Constitution (e.g. jurisdiction on the basis of nationality of perpetrator, nationality of victim, impact on State interests).

Biosafety and biosecurity measures – In the general veterinary /animal health context, biosecurity is defined by the OIE to be the set of management and physical measures designed to reduce the risk of entry, establishment and spread of animal diseases, infections or infestations to, from and within an animal population. The notion of biosecurity as it applies to the farm is well known to veterinarians. In relation to biological threats however, special emphasis must also be placed on *laboratory* biosafety and biosecurity. Laboratory biosafety refers to the containment structures, technologies and practices applied for the prevention of unintentional exposure of people to biological materials, or their accidental release (i.e., ‘keeping germs away from people’). Laboratory biosecurity describes the protection, control and accountability for high-risk biological materials within laboratories, in order to prevent their unauthorized access, loss, theft, misuse, diversion or deliberate release (i.e., ‘keeping people away from germs’). Specific laboratory biosafety and biosecurity measures that should be present in national law include:

- Lists of controlled biological agents and toxins;
- Licencing systems;
- Systems for notification of accidents, loss or theft;
- Comprehensive record-keeping;
- Physical security for laboratories;
- Laboratory biosafety and biosecurity training for personnel;
- Secure transportation.

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Transfer and import/export controls – Internal and international movement of biological agents and toxins must be regulated. Suitable measures should include:

- Lists of controlled biological agents and toxins, and dual-use biological equipment and technology;
- Transfer and import/export permit system;
- End-user certificate;
- Effective border controls.

Enforcement and emergency preparedness – The impact of legislation may be of limited value if the mechanisms and resources for effective enforcement and response are not accounted for. In this regard, the legislation should establish suitable measures, including:

- Identification of a national point of contact with the BWC Implementation Support Unit⁶;
- Creation of an authority (an interagency body) responsible for overall policy co-ordination and enforcement of the legislation and any regulations at the national level;
- Creation of a system to respond to and investigate biological emergencies;
- Inspections of laboratories and other facilities where controlled biological agents or toxins may be found;
- Training and special powers for law enforcement officials including customs and other border officials, sea port and airport authorities;
- Disease surveillance; response capability in the event of a natural, accidental or deliberately caused outbreak;
- Co-operation agreements among law enforcement, Veterinary Services and health officials as well as Ministries of Health, Environment and Agriculture, among others;
- International co-operation on judicial and criminal matters;
- Specialised investigative techniques such as joint interviews and record-keeping with public health personnel and law enforcement.

The OIE envisions a world that is safe and secure from the accidental or deliberate release of animal pathogens, including zoonoses, and recognizes relevant legislation as a core component of national capabilities to prevent, detect, prepare and respond to biological threats. OIE also recognises the value of adopting a One Health approach to achieve this vision. The OIE can provide assistance to its Member Countries in reviewing and strengthening legislation in the veterinary domain relative to biological threats through its Veterinary Legislation Support Programme.

⁶ The BWC Implementation Support Unit (ISU), located in Geneva, was established by States Parties to the Convention during the Sixth Review Conference to provide administrative support in relation to the BWC, to receive and distribute Confidence Building Measures (CBMs) among States Parties, to promote the universalization of the BWC, to serve as a focal point for the exchange of information on national implementation measures, and to act as a clearinghouse for assistance requests and offers.

Annex 24 (contd)

Annex IV (contd)

The OIE Veterinary Legislation Support Programme

The Veterinary Legislation Support Programme (VLSP) is one component of the OIE Performance of Veterinary Services (PVS) Pathway. The PVS Pathway is a set of tools and programmes designed by the OIE to assist its Member Countries in the strengthening of their Veterinary Services. The OIE initiated the VLSP in 2008 to help Member Countries recognise and address their needs for modern, comprehensive veterinary legislation in compliance with international standards to support strong and effective Veterinary Services.

In 2016, OIE VLSP Experts received additional training for the assessment of national veterinary legislation in the context of biological threat reduction, so that during a Veterinary Legislation Identification Mission (initial phase of the VLSP), they are better able to assess compliance of national laws with the requirements of the BWC and UNSCR 1540 as they relate to the veterinary domain.

Following a Veterinary Legislation Identification Mission with a special focus on biological threat reduction, if a country wishes to strengthen its veterinary legislation relative to biological threats, based on recommendations in the mission report, the country OIE Delegate can request further assistance from the OIE in the form of a follow-on Veterinary Legislation Agreement (second phase of the VLSP) wherein the OIE identifies a designated VLSP expert to support the country in drafting new legislation.

OIE Delegates interested in requesting a Veterinary Legislation Identification Mission with a special focus on biological threat reduction may do so by making a written request to the OIE Director General, Dr Monique Eloit (m.eloit@oie.int) with a copy to the Coordinator of the Veterinary Legislation Support Programme, Dr David Sherman (d.sherman@oie.int).

Delegates interested in learning more about OIE's involvement in biological threat reduction can find additional information on the OIE website at the following link:

<http://www.oie.int/en/our-scientific-expertise/biological-threat-reduction/>

SIDEBAR: The potential costs of a deliberate introduction of an animal pathogen into livestock

In 2001, in the United States, the anthrax bacteria, a common animal pathogen and zoonotic agent, was used as an instrument of terror – sent through the mail in personal letters to public figures in government and the media. The episode resulted in 5 deaths, motivated thousands to pursue precautionary treatment, caused widespread fear, disrupted economic activities, resulted in clean-up costs in excess of one billion US dollars, and triggered what became one of the largest and most complex criminal investigations in the history of the US Federal Bureau of Investigation (FBI). The event left no doubt that animal pathogens can be used as biological threats.

While there are currently no documented cases of animal pathogens being used by non-state actors to deliberately create disease outbreaks directly in livestock, the possibility of such events is very real and must be taken seriously.

Take for instance the first occurrence of mad cow disease in the United States. The agent that causes mad cow disease would not be a good candidate as a bioterrorist agent for a number of reasons. Nevertheless, the episode underscores the potential damage of selecting livestock as a target for bioterrorism. When mad cow disease was first reported in the United States in 2003, there were 96.1 million head of cattle in the country. The disease incident, which occurred in the state of Washington, involved a *single* cow, which had earlier been imported from Canada. Yet as a result of the diagnosis in this one animal, beef exports from the entire US were virtually halted. U.S. ranchers and processors lost almost \$11 billion in revenue between 2004 and 2007 after major importers, notably Japan and the Republic of Korea, barred U.S. beef imports. As mad cow disease can potentially infect people, the outbreak also undermined confidence in the safety of beef. National consumption slumped considerably, causing further hardships and financial losses for beef producers and processors.

Annex 24 (contd)

Annex IV (contd)

Unlike the agent that causes mad cow disease, the virus that causes foot and mouth disease is considered by experts to be a very likely candidate for use in bioterrorism. It is highly contagious, can be easily transmitted via inanimate objects and can be spread by wind. The United States is free of foot and mouth disease and therefore, the risk of deliberate introduction into the country's livestock would have a devastating effect. The impact of deliberate FMD outbreaks in US cattle has been modelled and the outcomes are sobering⁷. An isolated outbreak perpetrated at a single location, even if quickly recognized and effectively controlled, was still estimated to cost the US \$37 billion in economic disruption of the cattle industry. Outbreaks orchestrated by terrorists to occur simultaneously at different locations around the country were estimated to result in economic losses of up to \$228 billion.

In 2001, the United Kingdom, also free of FMD, experienced an outbreak of the disease in cattle which highlighted the enormous economic and social consequences that such a highly contagious livestock disease can produce. It resulted in 10,124 affected farms, more than 4 million slaughtered animals, and an economic impact of approximately 14 billion USD. In addition to the direct costs to the agriculture sector, the UK tourist industry experienced high indirect costs due to movement restrictions and the visual impact of the cattle cull and the burning animals throughout the UK countryside. Though the outbreak was deemed to have been a natural, unintended event, it could well have been a deliberate event and thus underscores the potentially destructive impact of deliberate biological threats in the livestock sector.

Clearly national Veterinary Services need to be ready to respond to deliberately caused disease events just as they are for naturally and accidentally occurring disease events and need to be properly resourced to do their jobs, as the failure to control such outbreaks can be catastrophic.

⁷ Oladosu G, Rose A, Lee B (2013) Economic Impacts of Potential Foot and Mouth Disease Agroterrorism in the USA: A General Equilibrium Analysis. *J Bioterr Biodef* S12: 001. doi:[10.4172/2157-2526.S12-001](https://doi.org/10.4172/2157-2526.S12-001)



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Annex 25

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June 2018

REPORT OF THE MEETING OF THE OIE AD HOC GROUP ON AVIAN INFLUENZA

Paris (France), 25–27 June 2018

The OIE *ad hoc* Group on avian influenza (the Group) met at OIE Headquarters in Paris on 25–27 June 2018.

Dr Matthew Stone, Deputy Director General of the OIE, on behalf of Dr Monique Eloit, Director General of the OIE, welcomed members of the Group and the representatives from the Scientific Commission for Animal Diseases (Scientific Commission) and the Terrestrial Animal Health Standards Commission (Code Commission) and thanked them for their support for the OIE in this important area of work.

Dr Stone commented on the important task of the Group to review and align the *Terrestrial Animal Health Code (Terrestrial Code)* chapter on infection with avian influenza viruses, and the expected outcome of the Group should be an in-depth review of the chapter.

Dr Stone noted that avian influenza is not a disease for which the OIE officially recognises freedom status. However, he emphasised the work to strengthen and increase the transparency and visibility of the OIE procedure for the self-declaration of freedom from diseases. He highlighted that Members need to comply with OIE international standards should they want to self-declare freedom from avian influenza, and that the vast majority of such declarations to date from Member concern avian influenza, reinforcing the need for clear standards.

The members of the Group and other participants are listed at Annex II.

1. Adoption of the agenda

The agenda adopted is at Annex I.

2. Summary of outcomes of the first meeting of the Group

The OIE Headquarters reminded the Group of the proposals for the revision of the definitions of ‘avian influenza’ and ‘poultry’ at its first meeting, in December 2017. The Group had before it the comments of Member Countries and took note of the summary of the comments received on the proposed text. The Group reconsider the proposed definitions along with Member Country comments, with the aim proposing further modifications for consideration by the Specialist Commissions at the September 2018 meetings.

The Group agreed to address substantive matters in relation to the revision of the current Chapter 10.4. on Infection with avian influenza viruses of the *Terrestrial Code*, entrusting the OIE Headquarters with any consequential drafting modifications.

Annex 25 (contd)**3. Addressing Member Countries' comments on Chapter 10.4. Infection with avian influenza viruses**General comments

The Group noted that a wide range of comments were received on Chapter 10.4. from Member Countries regarding low pathogenicity avian influenza (LPAI), its notification requirements and the purposes of surveillance. The Group recognised the importance of effective surveillance and the sharing of information on the occurrence of LPAI through appropriate reporting, and the prevention and control of newly evolving threats from animal reservoirs.

The Group agreed on the importance of the sharing information on the occurrence of LPAI across disciplines and sectors as the key element in reducing the risk of zoonotic disease emergence for all subtypes of LPAI viruses and identifying means of managing the H5 and H7 LPAI mutation risks to high pathogenicity avian influenza (HPAI) viruses in order to better prevent or contain them.

On the other hand, the Group were of the view that, in light of the unjustified trade measures resulting from H5 and H7 LPAI outbreaks in some Member Countries, further elaboration of obligations in Member Countries might be warranted. The Group reiterated the importance of addressing the differences of risks between HPAI and LPAI in a factual and clear manner, while agreeing with sentiments that consultations with the scientific community would benefit the Code Commission in its work. Thus, the Group harmonised the terminology about the reporting throughout Chapter 10.4., ensuring that H5 and H7 LPAI should be taken into consideration in accordance with national priorities.

Detailed comments from Member Countries:a) Proposed definition of 'avian influenza'

The Group noted that comments were generally supportive of the proposed approach for separating LPAI from HPAI and creating new articles in the same chapter dedicated to LPAI. However, some Member Countries raised concerns regarding a recommendation for six-monthly LPAI reporting, noting that six-monthly reporting contains less information, and could lead to less transparency. The Group was of the opinion that the full definition of LPAI also needed to be included in Chapter 10.4. to meet the intent of the chapter.

Dr Etienne Bonbon clarified that notification and reporting requirements prescribed in Chapter 1.1. of the *Terrestrial Code* apply to all listed diseases, including LPAI viruses, and any emerging diseases. In other words, all LPAI viruses identified not meeting the immediate notification requirements by default could be reported through six-monthly reports on the absence or presence and evolution of LPAI viruses. The Group agreed on the need to add a new point to the LPAI related article to reflect the importance of using reporting methods appropriate to the situation.

The Group noted the emergence of H9N2 virus infection reported in humans, and the widespread occurrence of this subtype in poultry, especially in Asia. The Group considered it would be more appropriate to be dealt with as an emerging disease rather than adding the subtype into the recommendations of the chapter.

The Group also noted that if the OIE developed an LPAI guideline for surveillance and control, then a reference to it in the *Terrestrial Code* may be a good solution to this problem. HPAI should be reported as before, but LPAI with H5 or H7 subtype with a significant epidemiology change or with other species affected should be reported through immediate notification.

b) Proposed draft revised definition of 'poultry'

The Group discussed at length the term 'backyard poultry' and considered whether it was possible to clearly define it. The conclusions reached during the first meeting were reaffirmed by the Group upon its consideration of removing the term 'backyard poultry' from the definition of 'poultry' noting that in many countries, the poultry sector was integrated in such a way that no clear separation could be made between different sectors. Due to the wide range of combinations of different types of production systems, the term 'backyard flocks' could not be defined.

Annex 25 (contd)

The Group took note of the concerns expressed by Member Countries with respect to a perceived lack of clarity in the meaning of the term ‘self-consumption’. In particular, concerns were expressed regarding how to define the size of an operation or the scope of distribution covered by ‘self-consumption’. To avoid any confusion with regard to the use of that term, the Group agreed to delete the proposed text and add a new sentence at the end of the first paragraph to read as follows: “If birds are kept in a single household and their products are only used in the same household, these birds are not considered poultry”.

The modified phrase emphasizes that the birds are kept and consumed; and their products are used within the same household without having come into contact with other birds. The Group determined that the term ‘household’ was more appropriate than that of ‘family’.

In response to a concern about uncertainty with respect to the placement of the phrase “all birds used for restocking supplies of game”, the Group decided to create a separate sentence out of the first paragraph and placed it between the first and third sentence in order to clarify that the all birds used for restocking supplies of game including birds used for breeding these types of birds are considered poultry.

The Group noted that general support had been expressed in the Group for a broad application of the revised definition of ‘poultry’ that could be applied to other disease-specific chapters such as Newcastle disease and *Salmonella*, in preference to dealing with specific situations. However, the Group noted that the extent to which the revised definition of ‘poultry’ should affect the Glossary definition of ‘poultry’ remained to be considered by the Code Commission.

4. Developments since the last meeting of the *ad hoc* Group

Incubation period

The Group recognised that the current definition of the incubation period as 21 days and its application to isolation period throughout the chapter could be unnecessarily risk averse, since 21 days already includes various considerations providing a safety margin. Dr David Swayne noted that the current incubation period of 21 days had been set based on Easterday *et al.* from the 10th edition of Diseases of Poultry.

“The incubation periods for the various diseases caused by these viruses range from as short as a few hours to 3 days in individual birds and up to 14 days in a flock. The incubation period is dependent on the dose of virus, the route of exposure, the species exposed, and the ability to detect clinical signs.”

The Group discussed the difference between animal level and flock level incubation periods, in particular in regard to notification and enumeration of cases, and noted the definition of incubation period in the Glossary. Because the epidemiological unit of concern is normally the flock, it was decided to make reference to ‘at flock level’. The incubation period for a flock of 14 days is usually cited in the literature.

The Group noted that the incubation periods for LPAI were unknown and unclear in certain animal species as clinical disease was not always produced. However, considering the importance of domesticated poultry populations in the epidemiology of avian influenza outbreaks, as well as zoonotic risks and mutation risks of H5 and H7 LPAI viruses, the Group considered that these circumstances would justify the inclusion of specific time reference in the chapter.

A study published by a Dutch group (M.E.H. Bos *et al.*, 2007) determined the incubation period of HPAI viruses at the flock level to be 11–15 days, which supports the 14 days referenced by Easterday *et al.* In the absence of conflicting scientific evidence, the Group decided to reduce the currently adopted incubation period of 21 days to 14 days, and specify this is applied at the flock level, for the purpose of the *Terrestrial Code*.

Annex 25 (contd)Commodity-trade requirements

It was agreed that the articles presenting commodity requirements for “freedom from avian influenza” would no longer appear in the chapter, in accordance with the revised scope. The Group agreed that the H5 and H7 LPAI presented a lower risk than HPAI for spread through raw meat and table eggs, as was determined by a previous *ad hoc* group. However, the group agreed a risk assessment should be undertaken to support making changes to articles 10.4.14. and 10.4.19. on raw meat and table eggs.

The Group also agreed that if the industrial processing activities were standardised or known to inactivate the avian influenza virus, they could be called a commercial process. Recognizing the need to ensure consistency of the draft text in the area of safety interests, the Group agreed to change the text as suggested.

Vaccination

The purpose of vaccination is to reduce the susceptibility of birds to infection and reduce shedding titre of virus if infection occurs. Vaccination can be an appropriate prevention and control tool for HPAI.

To support endemic countries’ efforts on the control of HPAI, and for the purposes of the *Terrestrial Code*, the Group decided to add a point about the purpose of implementing vaccination programmes and the implications for free status.

The Group noted that if vaccination was used in a country seeking to export poultry or poultry products, more information would be needed on the vaccination certificate or through the negotiation process than the date and type of vaccine used. The Group agreed that the exporting country would need to provide evidence supporting the absence of infection to the importing country.

The Group also noted that development and validation of appropriate tests and test systems to identify infections within vaccinated flocks (i.e. DIVA test) during peace time could support the use of vaccination as a risk reduction tool. A DIVA strategy could be serological (e.g. heterologous neuraminidase) or virological (e.g. RRT-PCR or antigen detection ELISA) tests used in vaccinated or sentinel birds.

Surveillance

The Group discussed the frequency of testing to establish avian influenza free-establishments by explaining the concept of a period of restriction with a 14-day incubation period and either adding seven days or simply double the incubation period, which is the standard approach in other chapters. Following discussion, the Group decided to propose 28 days, concluded by doubling the 14 days of incubation period.

The Group noted that adding an article on how to reduce the period from three months from the last outbreak for self-declaration of HPAI freedom (as described in Article 10.4.4.) or the surveillance requirements for HPAI and H5 and H7 LPAI freedom would be a big challenge for the Group.

The Group also noted that the H5 and H7 LPAI free establishments article (10.4.32.) for export of high risk commodities such as live poultry, live birds other than poultry, day-old chicks and hatching eggs should be maintained.

The Group understood that many countries have a surveillance system to detect HPAI in wild birds, and guidance in the chapter would be useful.

Following the above consideration of epidemiological principles, the Group systematically considered the articles in the chapter and identified the associated changes that would need to be incorporated.

Annex 25 (contd)Article 10.4.1. General provisions

The Group confirmed the understanding of Member Countries that the draft revised text should maintain its general applicability to cover the scope of the chapter and the current epidemiology and address procedural issues that might arise, without differentiating the types of avian influenza. The Group decided to add an introductory paragraph to clarify the focus on HPAI, but that it also explains the overall scope of chapter including zoonotic potential and change of reporting requirements.

The Group noted that the importance of immediate reporting of:

- zoonotic influenza A viruses of any subtype; or
- epidemiological change in H5 or H7 LPAI viruses that indicates:
 - a move to increase virulence such as increase in basic amino acids at cleavage site or loss of glycosylation site at cleavage site; or
 - change in mammalian host species transmission; or
 - secondary spread among poultry species cases, or change in host species.

The Group also noted that the definition of avian influenza was proposed to be HPAI only and moved H5 or H7 LPAI to a new article within the chapter with measures to manage the risk of mutation from low to HPAI virus through tracking and reporting while avoiding unnecessarily restrictive trade practices.

Article 10.4.1bis. Safe commodities

The current version of the *Terrestrial Code* on avian influenza chapter does not provide a list of safe commodities, which differs from the approach that has been adopted for other disease chapters in the *Terrestrial Code*. The Group took note of the standardised process for certain commodities provided to the OIE by relevant industry associations.

The Group noted that if the industrial processing activities were standardised and known to inactivate the avian influenza viruses, the following products could be called safe commodities:

- heat-treated poultry meat in a hermetically sealed container with a Fo value of 3.00 or more;
- extruded dry pet food and poultry-based coated ingredients after extrusion;
- rendered meat and bone meal, blood meal, feather meal and poultry oil;
- feather and down processed by washing and steam-drying.

Articles 10.4.2. and 10.4.3. Determination of the status of a country, zone and compartment free from avian influenza

The Group noted that the existing chapter also dealt with H5 and H7 LPAI to encourage Member Countries to keep each other informed of their health status for viruses that have the potential to mutate from the low to high pathogenic state. The Group discussed the difficulty of demonstrating country or zone freedom, the fact that LPAI is ubiquitous or widespread would render surveillance needed for declaration of freedom unfeasible. In this respect, the Group proposed to remove the provisions related to LPAI free status from the chapter and to keep them only for notification and surveillance purposes.

The Group agreed that these articles describing a country, zone or compartment free from avian influenza could be deleted, while noting the stated intention above to introduce new articles addressing freedom from HPAI.

Annex 25 (contd)Article 10.4.3. Country or zone free from high pathogenicity avian influenza

The Group agreed that the words “based on surveillance in accordance with Articles 10.4.27. to 10.4.33.” should be inserted after the word “when” in paragraph 1 of the article to ensure consistency between that paragraph 1 and paragraph 2 of the same article that contained that qualifier. The Group also agreed that if infection has occurred in poultry in a previously free country or zone, the free status can be regained based on “the robustness of the stamping-out policy and the confirmation of absence of infection as demonstrated by specific surveillance undertaken in accordance with Article 10.4.XX.”

Article 10.4.3bis. Compartment free from high pathogenicity avian influenza

The Group agreed that the establishment of a compartment free from HPAI should follow the relevant requirements of this chapter and the principles in Chapters 4.3. and 4.4.

Article 10.4.3ter. Establishment of a containment zone within a country or zone free from high pathogenicity avian influenza

The Group agreed that an article could be drafted describing requirements for a containment zone within a country or zone free from HPAI in the event of limited outbreaks, which includes all epidemiologically linked outbreaks, for the purposes of minimising the impact on the rest of the country or zone. The Group also agreed that the surveillance programme should take into account the measures that had been taken, the density of poultry production, types of poultry and local management practices, etc.

Article 10.4.5. Recommendations for importation from a country, zone or compartment free from high pathogenicity avian influenza

The Group agreed to include that the words “that the poultry originated from a country, zone or compartment free from HPAI” without the need to specify “since they were hatched or for at least the past 21 days”.

Article 10.4.6. Recommendations for importation of live birds other than poultry

The Group agreed that the birds should be kept in isolation for at least 28 days instead of 21 days and should be subjected to a diagnostic test for influenza A viruses within 14 days prior to shipment, with negative result for H5 or H7 subtype. The Group noted that the change to 28 days from 21 days was introduced using the double incubation period.

Articles 10.4.7., 10.4.10., 10.4.13. and 10.4.16. Recommendations for importation from a country, zone or compartment free from avian influenza

The Group agreed that these articles should not be presented and deleted the articles.

Article 10.4.8. Recommendations for importation from a country, zone or compartment free from high pathogenicity avian influenza

The Group suggested that the poultry be derived from parent flocks free from infection with any H5 or H7 influenza A viruses or that day-old live poultry were hatched from eggs that have had their surfaces sanitized in accordance with point 4 d) of Article 6.5.5. The Group noted the 21 days should be taken out and included that the parent flocks had no clinical sign of infection at the time of egg collection.

Article 10.4.9. Recommendations for importation of day-old live birds other than poultry

The Group suggested that the parent flock birds were subjected to a diagnostic test for influenza A viruses at the time of the collection of the eggs, with negative results for H5 or H7 subtype.

Annex 25 (contd)Article 10.4.11. Recommendations for importation from a country, zone or compartment free from high pathogenicity avian influenza

The Group suggested that the eggs were derived from parent flocks free from infection with any H5 or H7 influenza A viruses at the time of the collection of the eggs, or the eggs had their surfaces sanitized in accordance with point 4 d) of Article 6.5.5.

Article 10.4.12. Recommendations for importation of hatching eggs from birds other than poultry

The Group agreed that the parent flock birds were subjected to a diagnostic test for influenza A viruses 14 days prior to and at the time of the collection of the eggs and with negative result for H5 or H7, and the eggs had their surfaces sanitized in accordance with point 4 d) of Article 6.5.5.

Article 10.4.14. Recommendations for importation from a country, zone or compartment free from high pathogenicity avian influenza

The Group agreed that the eggs should be produced and packed in a country, zone or compartment free from high pathogenicity avian influenza and transported in new or appropriately sanitized packaging materials.

Article 10.4.15. Recommendations for importation of egg products of poultry

The Group agreed that the commodity should be derived from eggs which met the requirements of Article 10.4.14. or processed to ensure the inactivation of avian influenza virus in accordance with Article 10.4.25.

Article 10.4.17. Recommendations for importation of poultry semen from a country, zone or compartment free from high pathogenicity avian influenza

The Group agreed that the donor poultry should show no clinical sign of avian influenza in poultry on the day of semen collection and have been kept in a country, zone or compartment free from high pathogenicity avian influenza.

Article 10.4.19. Recommendations for importation of fresh poultry meat from a country, zone or compartment free from high pathogenicity avian influenza

The Group agreed that the entire consignment of fresh meat should come from poultry which originated from a country, zone or compartment free from high pathogenicity avian influenza, which had been slaughtered in an approved abattoir in a country, zone or compartment free from high pathogenicity avian influenza in poultry and had been subjected to ante- and post-mortem inspections in accordance with Chapter 6.3. with favourable results.

Article 10.4.20. Recommendations for importation of meat products

The Group agreed that the commodity should have been processed to ensure the inactivation of avian influenza virus in accordance with Article 10.4.26.

Article 10.4.20bis. Recommendations for importation of poultry products not listed in Article 10.4.1bis and intended for use in animal feed, or for agricultural or industrial use

The Group agreed that Articles 10.4.21. and 10.4.24. could be combined and become Article 10.4.20bis. for the importation of poultry products not listed in Article 10.4.1bis. The Group noted that rendered meat, bone meal and blood meal were safe because the industry associations standard processing practice was well above the requirements to inactivate the viruses.

Annex 25 (contd)Article 10.4.22. Recommendations for importation of feathers and down of poultry

The Group agreed that these commodities should have originated from poultry as described in Article 10.4.19. and have been processed in a country, zone or compartment free from high pathogenicity avian influenza, or these commodities should have been processed to ensure the inactivation of avian influenza virus.

Article 10.4.23. Recommendations for importation of feathers and down of birds other than poultry

The Group agreed that these commodities should have been processed to ensure the inactivation of any virus which would be considered avian influenza in poultry.

Article 10.4.26bis. Procedures for the inactivation of high pathogenicity avian influenza virus in scientific specimens and skins and trophies

The Group agreed that these commodities should have been processed to ensure the inactivation of high pathogenicity avian influenza virus in scientific specimens and skins and trophies.

Diagrams use and interpretation of diagnostic tests in surveillance

The Group questioned the necessity of including in the *Terrestrial Code* diagrams on the use and interpretation of diagnostic tests in surveillance (Article 10.4.33.) and proposed that they be moved to the *Terrestrial Manual*.

A draft paper for publication in the OIE *Bulletin* that covers updates on the epidemiology of current AI outbreaks, the dynamics of AI introduction by wild birds, targeted surveillance, and risk mitigating measures was submitted to the Group for comment.

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Annex 25 (contd)

Appendix I

OIE AD HOC GROUP ON AVIAN INFLUENZA

Paris, 25–27 June 2018

Agenda

- 1) Opening of the meeting
- 2) Adoption of the agenda and meeting arrangements
- 3) Summary of the outcomes of the first meeting of the *ad hoc* Group held in December 2017
- 4) Address Member Countries' comments received after the February 2018 Specialist Commission meetings.
 - a) Definition of 'AI'
 - b) Definition of 'poultry'
 - c) Other issues
- 5) Developments since the last meeting of the *ad hoc* Group (in December 2017)
 - a) The 21-day incubation period and the three-month waiting period to recover disease free status
 - b) Safe commodities
 - c) Commodity-trade requirements
 - d) Vaccination
 - e) Surveillance
- 6) Other matters
- 7) Date of next meeting.

Annex 25 (contd)

Appendix II

REPORT OF THE OIE AD HOC GROUP ON AVIAN INFLUENZA VIRUSES

Paris, 25–27 June 2018

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Annex 25 (contd)Appendix II (contd)

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