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REPORT OF THE MEETING
OF THE SCIENTIFIC COMMISSION FOR ANIMAL DISEASES

Paris, 29 August – 2 September 2011

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A meeting of the Scientific Commission for Animal Diseases was held at the OIE Headquarters in Paris, France from 29 August to 2 September 2011. The Commission was welcomed by Dr Kazuaki Miyagishima, Deputy Director General and Head of the OIE Scientific and Technical Department, on behalf of Dr Bernard Vallat, Director General of the OIE. In his address, Dr Miyagishima reiterated the importance of the Commission on providing scientific guidance to the OIE, playing a crucial role on the scientific integrity of the Organisation. Dr Miyagishima also informed the Commission on the staff movements in Scientific and Technical Department in relation to the work of the Commission and expressed his concern regarding the shortage of personnel. Even though a new member joined recently the Scientific and Technical Department, two members managing the affairs of the Commission would both terminate their services at the OIE before the end of September 2011.

The meeting was chaired by Dr Gideon Brückner, President of the Commission with Dr Kris De Clercq as rapporteur.

1. Adoption of the agenda

The proposed agenda was presented, discussed and adopted.

The adopted agenda and the list of participants are attached as Appendices I and II.

2. Feedback from the 79th General Session of the OIE, May 2011

The Commission was briefed by Dr Miyagishima, who highlighted aspects from the 79th General Session of the OIE, held in May 2011. He explained some modifications made on the General Rules of the OIE and emphasised the importance of the new OIE policy for the declarations on confidentiality undertaking and declarations on potential conflict of interest, to be submitted by members of Specialist Commissions, Working Groups and selected *ad hoc* Groups. He also informed the Commission that the modification on the structure of the OIE Specialists Commissions, which now had a second Vice-President to replace the previously designated Secretary-General of the Commission. Commissions now shared a single set of Internal Rules, with different Terms of Reference and requirements for membership for each specific Commission. Dr Miyagishima also informed the Commission that "OIE Members" were to be referred to as "OIE Member Countries". He also indicated that the Collaborating Centres and the Reference Laboratories would be regulated under the revised General Rules and were to be referred under the collective name of "OIE Reference Centres". The Commission was provided with copies of the relevant Basic Texts of the OIE.

3. Report of the meeting of the Scientific Commission for Animal Diseases of 1 - 4 February 2011

The President of the Commission expressed his satisfaction on the supporting function provided by the staff of the Scientific and Technical Department of the OIE, and acknowledged their efforts in preparing detailed working documents for the meeting. The Commission expressed its concern on the shortage of personnel at the Scientific and Technical Department, which had the potential to jeopardise its duties and programme of work, and emphasised that the urgent appointment of suitably qualified replacement staff was necessary to ensure the satisfactory continuation of on-going activities and attention to matters regarding the Commission and the *ad hoc* Groups reporting thereto. The Commission reviewed relevant points from its previous report and the report of the President to the World Assembly of Delegates at the 79th General Session:

3.1. Guide on Terrestrial Animal Health Surveillance

The Commission took with appreciation note that the collection and consolidation of related documents has been concluded and were currently being reviewed by the Scientific and Technical Department. The Commission agreed on the need to include information on the surveillance for residues in the Guide. A suitable expert would be contacted by the President of the Commission to assist the Scientific and Technical Department in providing the relevant text. The Commission decided to maintain the proposed text on disease modelling, after the Scientific and Technical Department made the necessary changes to the proposed text. It was concluded that to maintain consistency with the OIE Handbook on Import Risk Analysis, the glossary of the *Terrestrial Animal Health Code* (the *Terrestrial Code*) should be used throughout the text.

3.2. Revision of the BSE surveillance model

The Commission was informed that the authors of the BSurvE model were not contacted yet by the Scientific and Technical Department. The Commission however reiterated its decision that the opinion of the authors should be obtained to enable an informed response to Member Countries on the problems they encountered especially in those countries with small cattle populations. It was also concluded the request from OIRSA to the OIE in respect of Type B surveillance would best be addressed once a response was received from the authors of the BSurvE model. The Scientific and Technical Department was therefore requested to dispatch a letter as a matter of urgency to the authors in which the questions raised by the Commission would be included.

3.3. Livestock-wildlife interface policy

The Commission acknowledged with appreciation that the definitions for the glossary of the *Terrestrial Code* on the different categories of wildlife were adopted at the 79th General Session. Note was also taken of the intention of the Code Commission to make the changes as necessary within the *Terrestrial Code* to accommodate the newly adopted definitions. However, the Commission noted that following the incurrence of diseases in domestic stock where wildlife was involved (e.g. FMD in Turkey and Bulgaria where wild boar was involved), situations might evolve in such a manner that potentially could challenge the decisions for the evaluation of the maintenance or loss of disease status. Observing that these situations were not fully provided for in the current edition of the *Terrestrial Code*, the Commission reiterated its previous request for in-depth discussions with the Code Commission on this matter. The Commission recalled that a draft text for discussion on the wildlife-livestock interface has been submitted to the Code Commission already in February 2010 for comment and discussions which were still pending. An internal comment was received prior to the meeting from the International Trade Department of the OIE, but urgent discussions with the Code Commission was requested to take place at the combined meeting of the two Commissions in February 2012. The Commission identified the need for the revision of existing text in, for example, the *Terrestrial Code* chapter on FMD and possibly also in related chapters such as those for Classical swine fever (CSF), African swine fever (ASF) and Swine vesicular disease (SVD) and the need to consider specific guidelines for wildlife surveillance.

3.4. Maintenance of disease status, and the mandate of the Commission in the event of perceived threat of officially allocated status

The Commission once again noted with concern the re-occurrence of diseases in Member Countries soon after the re-instatement of official disease status by either the Commission under its mandate or by the World Assembly of Delegates. The Commission re-iterated its previous decision on the need for expert missions to some Member Countries to assess the maintenance of disease status against the claims submitted in the annual confirmations to the OIE on the maintenance of their official disease status.

3.5. Vector surveillance and how to prove absence of vectors in relation to disease freedom

In discussing the implications of the pending submission for adoption of the revised chapter on African horse sickness as a disease for which the *Terrestrial Code* would provide official OIE disease status recognition, the Commission acknowledged that the implications for other OIE listed vector-borne diseases such as bluetongue and Epizootic haemorrhagic disease (EHD) should be taken note of. The need for a review of the current *Terrestrial Code* chapter on vector surveillance was identified as well as a simultaneous review of the chapters on bluetongue, African horse sickness and EHD to ensure consistency especially as it related to vector control, vector surveillance and risk mitigation activities related to the vector common to these three diseases.

4. Review of reports of *ad hoc* Group meetings

4.1. Report of the *ad hoc* Group on Epidemiology: 1 to 3 March 2011

The Commission acknowledged with appreciation the work conducted by the *ad hoc* Group on the 'Generic Guidelines for Disease Control', agreeing that it has suitable to be considered for inclusion as a horizontal Chapter in the *Terrestrial Code*. The draft text however, needed to be expanded by including information on actions to be undertaken to stop the spread of diseases, as well as more detail related to laboratory capability, logistical aspects and communication. Beyond that, the Commission concluded that the Guidelines should be published in two versions, one more detailed and narrative to be available on the OIE website and another more concise version formatted to be acceptable for publication as a horizontal chapter in the *Terrestrial Code.* The *ad hoc* Group on Epidemiology would be requested to continue work on both versions during its next meeting.

The Commission discussed the *ad hoc* Group observations regarding the possible linkage between the *Guide for Terrestrial Animal Health Surveillance* and the PVS tool, considering that the Guide could be complementary to the PVS tool for assessing surveillance systems and guiding Member Countries on the critical and generic aspects related to animal health surveillance. Further discussions on this topic would however be necessary at the next meeting of the Commission following the opinion of the *ad hoc* Group on this matter. The Commission supported the suggestion of the Group for the need of expanding the *Terrestrial Code* Chapter 1.4. on Surveillance (Article 1.4.7) by considering aspects included in the *Guide for Terrestrial Animal Health Surveillance*.

The Commission discussed the comments of the *ad hoc* Group regarding the Technical Consultation in Support of the OIE Emerging Pandemic Threats Program activities, agreeing on the importance of clear definitions of key cross-cutting concepts such as *emerging, introduction* and *endemicity* but emphasised that future work should be focused on the strategies to be adopted in the event of emerging threats. This aspect was identified as a priority issue in the working programme of the *ad hoc* Group for discussion and recommendations to the Commission.

The Commission reviewed the membership of the *ad hoc* Group on Epidemiology and agreed that possible changes to its membership should be considered and recommended to the Director General after the 80th General Session. The draft agenda for the meeting of the *ad hoc* Group scheduled for September 2011, was reviewed by the Commission to ensure that priority issues identified by the Commission be addressed.

The Commission adopted the report of the *ad hoc* Group. The report is attached as Appendix III.

4.2. Report of the *ad hoc* Group on Epizootic haemorrhagic disease (EHD): 15 to 16 March 2011

The Commission discussed the draft chapter proposed by the *ad hoc* Group, acknowledging the work undertaken despite the lack of sufficient supporting scientific data on the disease. The Commission also recognized the need to harmonize the approach taken in the proposed draft chapter with other vector-borne diseases such as bluetongue and African horse sickness, and identified further work on this aspect for inclusion in the Commission's revised work programme. The Commission supported the suggestion of the *ad hoc* Group for establishing a specific chapter on Epizootic Haemorrhagic Disease in the *Terrestrial Manual*. It was agreed that the draft chapter as approved by the Commission be submitted to both the Biological Standards Commission and Code Commission.

The report of the *ad hoc* Group was adopted and is attached as Appendix IV.

4.3. Report of the *ad hoc* Group on rabies: 20 – 22 April 2011

The Commission reviewed the report of the Group and took note of the modifications proposed by the Group on the draft *Code* chapter, as well as accommodating the comments from Member Countries. The Commission appreciated the rationale of the discussions and changes undertaken by the a*d hoc* Group, noting that the proposed chapter would be, after the chapter on Bovine spongiform encephalopathy (BSE), the second chapter in the *Terrestrial Code* to be proposed for adoption where the animal health status has a significant implication for human health. The approach to mitigating the risks to human health and the international spread of canine rabies embodied in the proposed draft chapter was considered consistent with the 5th Strategic Plan of the OIE. Recommendations on captive wild non-human primates were included. The revised chapter was approved by the Commission for submission to the Code Commission for circulation to Member Countries for comments and possible adoption during the 80th General Session in 2012.

The report of the *ad hoc* Group is attached as Appendix V.

4.4. Report of the *ad hoc* Group on *Peste des Petits Ruminants (PPR)*: 14 to 16 June 2011

The Commission was debriefed by Dr Joseph Domenech on the first meeting of the *ad hoc* Group. The Commission took note that the review of the existing *Terrestrial Code* chapter was being conducted to align the approach with other chapters in the *Terrestrial Code*, which had last been updated in 2000, the Commission reviewed the proposed chapter, agreeing with the extended list of susceptible species and with the proposed text on commodities. The Commission concluded that further development of the chapter should be undertaken in phases, the most important priority being the adoption of the revised text after circulation for Member Country comments. The Commission noted that the current chapter was out-dated and there the need for collecting updated information from Member Countries in view of the spread of the disease especially in Eastern Africa in a southerly direction within Africa. The Commission acknowledged that PPR could be considered as a disease for global eradication. To enable such a process, however, the disease needed first to be accepted by Member Countries as a disease eligible for official disease status recognition. Progress in this direction could be considered once the revised chapter was adopted by the World Assembly of Delegates and agreement obtained to add the disease to the existing list of OIE diseases for official disease status recognition. The Commission acknowledged the desirability of a revision of Chapter 2.7.11 of the *Terrestrial Manual* on *Peste des petits ruminants* to update the scientific aspects regarding diagnostic tests and quality control of vaccines. The observation of the *ad hoc* Group would be forwarded to the Biological Standards Commission for consideration.

The report of the *ad hoc* Group was adopted and is attached as Appendix VI.

4.5. Report of the *ad hoc* Group on antimicrobial resistance: 20 to 22 June 2011

The Commission noted with appreciation the progress made by the *ad hoc* Group, and agreed that issues on risk assessment, the review of the comments from Member Countries and the updating of the OIE list of antimicrobials of veterinary importance should be included in the agenda of the forthcoming meeting of the *ad hoc* Group, scheduled for December 2011. The Commission also discussed the need for developing guidelines on veterinary medicinal product legislation, to be included in the framework of Veterinary Legislation. The revised text was submitted to the Code Commission for further processing.

The report of the *ad hoc* Group was adopted and is attached as Appendix VII.

4.6. Report of the *ad hoc* Group on the Evaluation of the Foot and Mouth Disease Status of Members: 27 to 29 June 2011

The Commission acknowledged with appreciation the work performed by the *ad hoc* Group, which was presented by Dr Kris de Clercq who had represented the Commission at the meeting. The discussions on the FMD situation in the Thrace region is reflected under item 6.4 of this report.

The Commission had detailed discussions on issues related to the wildlife-livestock interface, agreeing that the most appropriate approach would be to take into consideration the specific roles of each susceptible wildlife species and the appropriate level of management to be applied. In this way, a distinction could possibly be made between “manageable wildlife species” and “less manageable wildlife species” that could provide support for the decision regarding the disease control strategy to be adopted.

It was emphasized that the OIE Resolution nº 26 of 2011 defined the term wildlife as "feral animals, captive wild animals and wild animals", which better allows for the use of the management concept of specific species for diseases control. The Commission agreed that the use of a *containment zone* might be complex when applied to wildlife, and further discussions on this subject considering the requirements of the *Terrestrial Code* were necessary, especially in relation to stamping-out, movement control and surveillance strategies. The Commission acknowledged that there were animal species for which their actual role in the epidemiology of FMD required further clarification such as *Camelidae* in the South America and wild boar.

The recommendations of the *ad hoc* Group on the application from a Member Country for the recognition of a FMD free zone where vaccination is not practised was evaluated by the Commission. The Commission raised several questions regarding the responsibilities for surveillance and notification, existence of formal agreements between the applicant country and its neighbouring country. The Commission concluded that further documented evidence from the applicant Member would be necessary to enable an informed decision.

The Commission took note of the recommendations and rationale provided by the *ad hoc* Group for a review of the entire Chapter 8.5. of the *Terrestrial Code.* The Commission discussed the amendments proposed by the *ad hoc* Group. The Commission acknowledged the revision of the Chapter as a priority issue and decided to schedule an additional meeting of the *ad hoc* Group to dedicate the entire meeting for the revision of Chapter 8.5 and to make final recommendations to the Commission for consideration.

The report of the *ad hoc* Group was adopted and is attached as Appendix VIII.

4.7. Report of the *ad hoc* Group on Honey bee diseases: 5 to 7 July 2011

In reviewing the excellent work done by the *ad hoc* Group, the Commission agreed on the possible need for an introductory chapter to the section on diseases of honey bees to provide more clarity to Member Countries. It was acknowledged that the final conclusion and adoption of the revised text on the "Criteria for listing diseases" would determine decisions on listing for diseases such as Varroosis, Acarapisosis and Nosemosis. The Commission, in discussing the information in the report on the situation of *Apis mellifera capensis* occurrence in southern Africa, recommended liaison between the *ad hoc* Group on Honey bee diseases and the proposed *ad hoc* Group on Invasive Species. It was also recommended that further liaison of the *ad hoc* Group with the OIE Animal Health Information Department would be useful to refine and finalize the notification procedures for diseases of honey bees.

The report of the *ad hoc* Group was adopted and is attached as Appendix IX.

4.8. Report of the *ad hoc* Group on the official disease status recognition for Classical swine fever: 19 to 21 July 2011

The Commission acknowledged and discussed the work done by the *ad hoc* Group and follow-up actions as requested by the Commission at its previous meeting. It was noted that the *ad hoc* Group incorporated the comments from Member Countries as well as proposals from the Code Commission in the revised Chapter. The Commission raised several questions on the revised text prepared by the *ad hoc* Group – especially on issues of management of the wildlife vector, vaccination strategies and the impact thereof in recognising disease status with or without vaccination, and the criteria for trade in commodities. The Commission acknowledged that the work on the draft chapter (including refinement of the surveillance guidelines for CSF) was not yet finished and requested that the *ad hoc* Group should have a final meeting in December 2011 to finalise the draft chapter for submission by the Scientific Commission to the Code Commission for circulation to Member Countries for comments.

The report of the *ad hoc* Group was adopted and is attached as Appendix X.

4.9. Report of the *ad hoc* Group on Brucellosis: 20 to 22 July 2011

The Commission reviewed and discussed the report of the *ad hoc* Group and noted with appreciation the work done by the Group to address the topic from a pathogen approach and to consolidate the existing chapters in the *Terrestrial Code* into one chapter on Brucellosis. It was noted that the basic structure proposed in the revised chapter was to group *B. abortus*, *B. melitensis* and *B. suis* into a single chapter, taking in account their genetic similarities but acknowledging the fact that they cause disease in distinct

animal species. The recognition of disease status would acknowledge the appropriate animal species. A disease free country should thus be free of all three species of *Brucella* in all animal species, while it might be possible that one specific animal species be selected to be recognized as free for all the species of *Brucella*. The Commission recommended that aspects related to the appropriate diagnostic tests for *Camelidae* be referred to the Biological Standards Commission for consideration. The new drafted chapter was submitted to the Code Commission for further processing and Member Country comments. It was acknowledged that once the new chapter was adopted, the existing separate chapters in the *Terrestrial Code* on Brucellosis in separate species should be revoked.

The report of the *ad hoc* Group was adopted and is attached as Appendix XI.

5. Rinderpest

The Commission was informed by the OIE Scientific and Technical Department, on the progress with actions taken since the official declaration of global freedom at the 79th General Session. It was acknowledged that rinderpest eradication set a precedent and gave lessons for the future eradication of other diseases, even on human diseases. The Commission expressed its concern on the maintenance of appropriate biosecurity measures, since onwards little commercial and political interest on rinderpest virus were to be expected. The Commission was informed that the book regarding the rinderpest eradication was being jointly produced by the OIE and FAO, and was expected to be published in 2013.

5.1. Global contingency plan for rinderpest

The Commission was updated on the expected future activities of the Joint OIE/FAO Advisory Committee, to be established in accordance with OIE Resolution nº 18/2011, which would replace the current Joint Committee. The Terms of Reference for the Advisory Committee were presently under negotiation between the OIE and FAO, and its predicted roles were: to keep track of the virus inventory; to define protocols for inspections, research approval and applications for virus depository; to keep track on vaccine stocks and to provide advice on the international contingency plan. The Commission requested clarity from the OIE on the relations and cross-cutting activities of the Advisory Committee and the OIE Specialist Commissions. The Commission reiterated that subjects related to virus sequestration and laboratory biosafety should be the primary responsibility of the OIE Biological Standards Commission. The Commission was informed that about 30 countries were thought to have virus stocks, and it was proposed that the OIE utilise the legal instruments under its mandate to include the annual reporting of stocks of rinderpest virus containing material to the OIE. Concerning the appropriate conditions for virus storage, the Commission strongly discouraged uncontrolled virus storage and reiterated the need to expedite the process to secure current stocks at higher level biosecurity facilities to facilitate inspection procedures and monitoring. It was confirmed that there was no further need of annual reconfirmation of disease status for rinderpest by OIE Member Countries.

The urgency for concluding the review of the new draft *Code* chapter was stressed by the Commission, as well as the revision currently ongoing on the *Terrestrial Manual*.

6. Foot and Mouth Disease (FMD)

6.1. Information from the OIE/FAO FMD Reference Laboratories network

The Commission welcomed Dr Jeff Hammond from the OIE/FAO FMD Reference Laboratory, Pirbright, UK, who updated the Commission on the activities of the network as well as the current global status of FMD. He expressed concern on the decrease of funding for critical laboratory activities. The Commission was informed that the Biological Standards Commission was working on a guidance on the operation of OIE Reference Laboratories networks, which could open the possibility of formally recognising certain, well-established networks. Dr Hammond provided an overview of the global FMD status and diagnostic procedures conducted in 2010 and 2011. Figures were provided on the activities of the World Reference Laboratory for FMD, highlighting that 1218 samples were analysed in 2010, out of which more than 800 resulted positives, with serotype "O" diagnosed in 68% of the samples. In addition, no samples were diagnosed positive for serotype "ASIA 1" in 2010. In contrast, the analysis of samples in 2011 (Jan-Jul) demonstrated serotype "ASIA 1" in 66 samples out of 883 samples analysed, indicating

an emergence of this serotype as a matter of concern. Concern was expressed on the increased number of samples from which no virus was diagnosed, indicating the poor quality of many of the samples that were received in the laboratory and the need for training in sample collection and submission as well as a detailed epidemiological investigation of suspected outbreaks. The importance of vaccine matching to assess and monitor control strategies was once again emphasised. Good progress was reported on the activities of the network on vaccine banks.

The results of the Combined FMD and Swine Vesicular Disease (SVD) Proficiency Test Scheme (PTS) exercise of 2010 were presented, in which 57 laboratories out of the 74 invitees participated. Dr Hammond informed the Commission that the participants were mostly from countries where active control programmes were in place, as well as from countries recognised as free of FMD. It was possible to conclude that in general the real time RT PCR was more reproducible than Ag ELISA, although not being serotype specific. Some problems with cross-reactivity were identified on Ag ELISA.

Dr Hammond reiterated that the transport of the samples was still an issue of concern which called for more studies on appropriate approaches, mentioning that a pre-screening test performed by national or regional laboratories could bring some relief and alleviate the workload of the reference laboratory. He concluded by mentioning that a clearer definition of the roles of the FMD Laboratories Network within the global FMD control strategy was needed, of which the establishment of an Advisory and a Steering Committees could be helpful. Dr Miyagishima informed the Commission that while the non-funding of OIE Reference Centres would remain a fundamental principle of the OIE, the OIE was studying the possibility of specific funding for activities implemented in common laboratory networks. The Commission raised concern on the criteria for eligibility and priorisation of networks for funding, agreeing that a transparent and objective mechanism should be developed to regulate such funding.

6.2. Follow up on the FMD outbreak control situation in Korea, Botswana and South Africa

The situation of FMD in the Republic of Korea was reported as stable, with no more outbreaks being reported since April 2011. The vaccination of cattle and swine had been performed along with other control measures, and this brought the discussion in the Commission on the pathways to be followed for status recovery. The Commission identified the need for a possible review of Article 8.5.9 of the *Terrestrial Code* (recovery of status) to make provision for countries that had been free without vaccination prior to an outbreak and who chose a status of freedom with vaccination after successful containment of an outbreak. The *ad hoc* Group on the evaluation of country status for FMD would be requested to consider such possible amendment.

The Commission was informed on the intention of the Delegate of Botswana to apply for the establishment of a *containment zone* following a recent limited outbreak of FMD along the border with a neighbouring country.

The Commission expressed concern that the current FMD situation in South Africa was unclear due to lack of information. No follow-up reports or immediate notifications had been received by the OIE since May 2011.

6.3. Progress on the Global Strategy for FMD Control

The Commission was updated by the Scientific and Technical Department, on the progress with the development of a global strategy for FMD control. Two Groups of selected experts with a global representation had been identified, who would provide inputs at a meeting scheduled at OIE Headquarters in November 2011. The outcome of the consultations on the Global Strategy would then be presented at the 2nd FAO/OIE Global Conference on FMD Control, to be held in Bangkok, Thailand, 27-29 June 2012. The cost and the cost/benefit ratio of implementation of the Global Strategy would be assessed by the World Bank, including development and maintenance of regional and global laboratory networks proficiency testing and improvement of surveillance, focusing on the need of developing countries.

6.4. Feedback from and follow up to the OIE FMD expert mission to the Thrace region and the outbreak of FMD in Bulgaria

The status of FMD in the Thrace region of Turkey was evaluated following a detailed report received from the Delegate of Turkey on surveillance and sero-surveillance activities for foot and mouth disease in Thrace in 2011. The Commission discussed the report in detail concluding that there was sufficient evidence that there was no indication of virus circulation in both large and small ruminants, as well as in water buffalo. However, the surveillance results indicated evidence of virus circulation in wild boar. However, it was not possible to determine without doubt the onset of the infection, or how long the exposed animals would maintain circulating antibodies for FMDV. Since Article 8.5.5 (2)(b) of the *Terrestrial Code* provided that there should be no virus circulation in a zone eligible to be recognised as free of FMD, the Commission concluded that the FMD free status with vaccination of the Thrace region should be withdrawn. A possible option for Turkey would be to apply for rezoning of the Thrace region by excluding the areas at risk from wild boar and where positive samples from wild boar were detected during the survey. A letter to this effect would be dispatched to the Delegate of Turkey to convey the decision and recommendations of the Commission.

In response to a query from the Delegate of Bulgaria on the process to be followed for the re-instatement of its FMD free status, the Commission concluded that as there were positive cases in domestic animals in Bulgaria, the provisions of Article 8.5.9 of the *Terrestrial Code* for the recovery of FMD status would apply. The Scientific and Technical Department was requested to address a letter to this effect to the Delegate of Bulgaria.

6.5. Planned OIE FMD expert missions (Andean countries, Southern Africa)

The Commission discussed the terms of reference for the planned mission of OIE experts to the Andean region to assess the possibility of a regional approach for FMD control – similar to the system that was successfully applied in the MERCOSUR region. The planned mission would involve four countries - Colombia, Ecuador, Peru and Venezuela. The OIE Regional Representation for the Americas as well as representation from PANAFTOSA would assist in the logistical arrangements of the mission.

The Commission re-iterated its previous decision to request the Director General to conduct an expert mission to the southern African region during 2011 to assess the implementation of OIE standards for the maintenance of FMD free status.

6.6. Update on standing operating procedures for official disease status recognition

The Commission took note that the documentation outlining the rights and obligations of Member Countries in respect of applying for the recognition of disease status had now been finalised by the Scientific and Technical Department and had been published on the OIE website for information of Member Countries.

6.7. Procedural aspects for zoning, including protection zones for official FMD status

The Commission discussed the application of a protection zone following questions posed by the Scientific and Technical Department:

i. *Separation between two zones of equal disease status:* This situation occurred in some Member Countries where two adjacent zones inside the same country were recognised by the OIE as having the same status for FMD. The Commission concluded that there was no scientifical justification for separation of the adjacent zones of equal status by a protection zone as the decision to keep the zones as two entities was a political decision of the country concerned. Should an outbreak occur in one of the two zones the country should apply the requirements of the *Terrestrial Code* to prevent the introduction of FMDV and to protect the integrity of the free zone.

ii. *Differentiation of animal health measures for the cases of protection zones in a specific country which are defined as part of the free zone or as an independent zone*: The Commission concluded that in a situation where a *protection zones* is part of the free zone it would not change the impact of the occurrence of outbreaks in the *protection zone* or in a neighbouring country as the entire free zone in which the protection zone is included would be affected by the outbreak if it is not secured by the

establishment of a *containment zone*. The *protection zone* is thus in effect an area within the free zone where stricter animal health measures are applied. In the event of a *protection zone* not being part of the free zone, the occurrence of outbreaks inside the *protection zone* or in a neighbouring country would not affect the status of the free zone provided there is no introduction of FMDV.

iii. *Extension or reversion of an existing free zone:* The Commission concluded that any modification on the shape or limits of a *protection zone* as previously conveyed to the OIE, implies a change of status, and would need to be re-evaluated by the Commission. With such a precaution, it would not be possible to alter the current status of a previously identified *protection zone* on an *ad hoc* basis for example in the event of a reaction to an outbreak inside the protection zone or in a neighbouring country.

6.8. Requests to the Commission on information related to FMD vaccination and official disease status recognition

6.8.1. Request regarding the vaccination of zoo animals within a country free of FMD without vaccination

The Commission concluded that where such a practice was applied in a country free without vaccination, it would contradict the current definition in the *Terrestrial Code* of a "FMD free country where vaccination is not practised". However, it was acknowledged that for example in the case of outbreaks of H5N1 in Europe the vaccination of valuable zoo animals had been allowed although there was no official recognition procedure for HPAI. It was concluded that some flexibility should be applied to protect valuable genetic material without endangering the FMD free status of a country. The *ad hoc* Group on country evaluation for FMD status would be requested to consider the matter and advise the Commission accordingly.

6.8.2. Request for a field safety trial for an adenovirus-vectored vaccine for FMD

The Commission considered the query from a Member Country wishing to conduct a FMD vaccination trial with an adenovirus vectored vaccine without endangering the FMD free status of the country where vaccination is not practised. The interim response of the OIE to the Delegate was considered and it was concluded that due to insufficient information available to the Commission, the President of the Commission would discuss the matter with the President of the Code Commission and advise the OIE accordingly.

7. Evolution of glanders in the Middle East

The Commission was briefed by the Animal Health Information Department, on the current situation of glanders in the Middle East. The necessary strategies for surveillance were implemented, but movement control had to be improved. An OIE Regional Conference on Glanders was scheduled to be held in the region in 2012, where the countries of the region would be invited to present their activities for the control of the disease, focusing also on movements of horses. The Commission agreed that a decision on whether to consider glanders for official disease status recognition by the OIE should be made only after the outcome and recommendations of the Conference would be available to the Commission. The availability of relevant diagnostic tests must be assured to establish an effective control programme.

8. Update on scheduled or recently held OIE scientific conferences

The Commission was informed of the outcome of several Conferences organised under the auspices of the OIE as well as the planning of forthcoming conferences such as the Global Conferences on Rabies (2011) and on FMD (June 2012). The Commission expressed its full satisfaction on the outcome of the OIE Global Conference on Wildlife held in Paris in February 2011.

9. Update on OIE One Health Activities

The Commission was updated on the events and activities of the OIE on "One Health".

9.1. Meetings and Conferences

The Commission was informed that there was an initiative for the establishment of an international One Health Forum, aiming to organize the efforts of several interested institutions into a cooperative approach with a shared vision and implementation. The initiative originated in the discussions undertaken at the Stone Mountain Meetings, held in May 2010 where working groups were established aiming to organize the different initiatives ongoing at the moment. This initiative was also a key item on the agenda of the 1st International One Health Congress, held in Melbourne in a Chatham House Meeting on July 2011. FAO, OIE and WHO would organise a high level technical meeting on Health Risks at The Human-Animal-Ecosystems Interface in Mexico in November 2011, preparing the steps towards an inter-ministerial meeting in 2012. The Commission agreed that the OIE should keep abreast of these initiatives in support of the 5th OIE Strategic Plan. The Commission acknowledged that the OIE should focus on inter-sectorial collaboration between relevant sectors. The Commission also took note that the approved technical item with questionnaire for the 80th General Session would be "National and international experiences and roles in previous and future developments in the 'One Health' approach".

9.2. Pilot "One Health" PVS activities

The Commission was informed that the report of the pilot "One Health" PVS Evaluation performed on March 2011 in Costa Rica had already been sent for the revision to the Costa Rica. The evaluation team had included one staff member from PAHO who had been trained by the OIE on PVS. The next mission was planned for November 2011 in Kenya. The evaluation team would include one expert from WHO. The Commission acknowledged with thanks the incorporation of the wildlife component in the initiative and recommended that it should be aligned with the opinions of the Working Group on Wildlife.

9.3. Update on the Emerging Pandemic Threats Programme Activities in the OIE

The Commission was informed that the OIE/FAO/WHO Tripartite had identified the need for developing laboratory networks and diagnostic capability, as well as technical capability for human and animal emergencies. The Commission suggested that the definition of "Emerging Disease" should be clarified, especially in respect of when a disease came to be regarded as emerging and when a disease ceased to be classified as such. The Commission was informed that the Species Survival Commission of the International Union for Conservation and Nature was preparing a guide to wildlife disease risk analysis, compatible with OIE standards. The OIE had already given its support for this project.

10. Working Group on Wildlife Diseases (WGWD)

10.1. Review of the working programme and agenda of the meeting of the WGWD

The working programme and the proposed agenda for the next meeting of the WGWD schedule for 7 to 10 November 2011 was presented by the Scientific and Technical Department. The Commission reiterated its opinion that wherever possible or appropriate members of the WGWD should be involved in *ad hoc* Groups where the wildlife-livestock interface was under discussion, for example, the planned *ad hoc* Group on invasive species. The issue of surveillance in wildlife was still subject to further discussion by the Commission and the involvement of the WGWD in this issue should be clarified at the next meeting of the Commission.

The Commission discussed the proposed agenda of the November 2011 meeting of the WGWD and indicated that no further inputs from the WGWD were needed at this stage on the proposed policy on the wildlife-livestock interface as the matter needed first to be discussed between the Scientific and Code Commissions at their next meeting in February 2012.

The Commission agreed to add the issue of the development of a component on wildlife in the PVS tool to the agenda and would be awaiting inputs from the WGWD.

The Commission took note of the discussion on zoonosis transmissible from non-human primates and noted that requests for revision of specific chapters in the *Terrestrial Code* by the WGWD should come from the Scientific Commission to the WGWD.

The Commission did not agree to add the item regarding country disease status in the event of infected wild animals detected at a quarantine station to the agenda of the WGWD as the provisions in respect of such an event were already covered within existing OIE standards.

11. Issues referred to the Commission by the Biological Standards Commission

No specific issues were referred to the Commission for discussion.

The Scientific Commission requested the secretariat to bring the following issues arising from the Scientific Commission meeting to the attention of the Biological Standards Commission:

- Diagnostic tests for Epizootic haemorrhagic disease (EHD) (see para 4.2.)
- Diagnostic tests for *Peste des petits ruminants* (PPR) (see para 4.4.)
- Brucellosis: Diagnostic tests for *Camelidae (*see para 4.9.)
- Rinderpest: Monitoring of viral stocks and laboratory security (see para 5.1.)
- Reference laboratories: decrease of funding for critical laboratory activities (see para 6.1.)

12. Issues referred to the Commission by the Code Commission

12.1. Member Country comments on the revised SVD chapter

The Commission reviewed the comments, observing that the new definition of "wildlife" adopted by the OIE Resolution nº 26/2011 was not yet in place yet when the Member Countries had submitted their comments. The Commission reiterated that it would be necessary to harmonize all related chapters on porcine viral diseases to accommodate the application of similar disease management practices although the diseases might differ one from another. Following Member comments and interventions at the 79th General Session, the Commission would be waiting further comments on the desirability of maintaining SVD on the OIE list of diseases.

12.2. Member Country comments on the revised chapter on criteria for listing diseases

The Commission reviewed all the comments addressed by Member Countries. A separate summary of the final comments and recommendations of the Scientific Commission was submitted to the Code Commission to facilitate discussions.

12.3. Report of the *ad hoc* Group on zoonotic parasitic disease

The Commission noted the on-going work by an *ad hoc* Group reporting to the Code Commission on this issue.

12.4. Comments of Brazil and Code Commission on the 'Generic Checklist on the Practical Application of Compartmentalisation'

Discussion on this issue was postponed until the next meeting of the Commission as no comments had been received.

12.5. Chapters with the OIE Member comments to be addressed

12.5.1. Chapter 15.2. Classical Swine Fever (CSF) with Member comments on the proposed revision

The comments were not discussed and referred to the *ad hoc* Group on Classical Swine Fever for consideration at its meeting in December 2011 to finalise the draft chapter including provisions for official disease status recognition.

12.5.2. Chapter 12.1. African horse sickness and extract of Chapter 1.6. Questionnaires (African horse sickness) with Member comments on the proposed revision

The Commission reviewed the comments and submitted the final document of the draft chapter on AHS to the Code Commission for further processing.

12.6. Joint discussions with the Code Commission

The Scientific Commission for Animal Diseases invited Dr Etienne Bonbon, Vice President of the Terrestrial Animal Health Standards Commission (TAHSC) and Dr Sarah Kahn, Head of the International Trade Department, to discuss the following issues:

1. Revision of SVD and CSF chapters and OIE official recognition of CSF status

The Scientific Commission explained that the *ad hoc* Group on CSF continued its review on the current CSF chapter taking into consideration Member comments, implication of wildlife/livestock interface, surveillance and official disease status recognition. As the CSF chapter and SVD chapter should be reviewed in a coordinated manner, the Scientific Commission proposed putting the revision of the SVD chapter on hold until the review of CSF chapter had been completed. The TAHSC was in agreement with this approach.

Dr Bonbon noted that the listing of SVD would be addressed once the revision of the disease listing criteria had been adopted.

On the official recognition of CSF free status, it was agreed that this would be for adoption in May 2013 rather than in May 2012 in view of the work to be done.

2. Revision of disease listing criteria chapter

The Scientific Commission presented, for TAHSC review, a proposal to amend the chapter in response to various Member Country comments. It was agreed that the disease chapters in the *Terrestrial Code* would be renamed along the lines 'infection with pathogen X' or 'infection with XXX spp.' The TAHSC would look closely at the definition of the criterion 'demonstrated ability for international spread'.

It was agreed that once Member Countries had expressed their support for the revised text, the TAHSC would make appropriate changes to the decision tree. Hopefully, these amendments could be adopted in May 2012. It was anticipated that the *ad hoc* Group on disease listing would be convened to review the OIE-listed diseases, including SVD, in July 2012.

3. New checklist for application of compartmentalisation

The Scientific Commission informed the TAHSC that the checklist that was previously provided to the TAHSC would be placed on the OIE website for information of OIE Member Countries. The TAHSC was supportive of the intention. The Scientific Commission was informed that a question had been raised on the requirement to suspend a compartment in the event of occurrence of any OIE listed disease in the compartment (i.e. diseases other than those for which the compartment had been designated). The Scientific Commission noted that comment and undertook to review the rationale forwarded by the *ad hoc* Group on Epidemiology on this point.

4. Revision of AHS chapter

It was confirmed that the Scientific Commission had reviewed the comments of Member Countries and the chapter would be forwarded to the TAHSC for further processing. Member concerns on the official recognition of vector-borne diseases and difficulty in ensuring recovery to disease free status had been well recognised. It was also noted that the inclusion of AHS on the list of diseases for which official disease free status could be granted would be an important progress for the OIE and its Member Countries.

It was explained that Scientific Commission would undertake a review to harmonise recommendations in the *Terrestrial Code* on AHS, BT and EHD (newly drafted chapter), together with the chapter on surveillance for vector-borne diseases. In the interim, it was agreed that the Code Commission would review the revised AHS chapter and the new EHD chapter and send them to Members for comment.

5. Revision of the PPR chapter

The Scientific Commission explained that the *ad hoc* Group on PPR chapter had requested to introduce, as a further development, the concepts of official OIE recognition status and a global control strategy. The Scientific Commission informed the TAHSC that official recognition of PPR free countries with the objective of encouraging Member Countries to strive for global freedom had been discussed between the Scientific Commission the Scientific Commission and the Scientific and Technical Department but that approval from the Council should first be obtained before progressing to the phase for official recognition. The draft chapter would be forwarded to the TAHSC for distribution to Member Countries.

6. Restructuring of the disease chapters by pathogen name

It was noted that within the TAHSC, changing the title of disease chapters to 'Infection of XXX (pathogen name)' had been, in principle, agreed. At the coming meeting, the TAHSC would discuss whether grouping by pathogen type or host species would be necessary to improve the user-friendliness of the *Terrestrial Code*. Dr Bonbon underlined that it would be important to hear Members' views on the proposal to restructure the *Terrestrial Code* and to go forward step by step, the first being the renaming of the chapter titles.

7. Future work on safe commodities

The TAHSC explained the rationale for drafting a new chapter (for inclusion in Volume 1 of the *Terrestrial Code*) on the OIE policy and approach to the definition of safe commodities. This work was needed because Members and experts had various views on what was meant by 'safe commodities'. This work could be undertaken by the *ad hoc* Group on trade in animal products (commodities). The International Trade Department suggested calling for an expert to develop a supporting document.

8. OIE draft policy paper on wildlife/livestock interface

The President of the Scientific Commission reiterated the request of his Commission for a discussion between the Scientific Commission and the TAHSC on the domestic animal/wildlife interface. He explained that several decisions to be taken by the Scientific Commission (for example FMD and CSF) touched on this issue indicating possible amendments to the *Terrestrial Code* to accommodate new scenarios related to country status evaluations. This matter was currently not satisfactorily addressed in the *Terrestrial Code*. The TAHSC agreed to take steps to facilitate such a discussion.

9. Revision of the rinderpest chapter

It was noted that the draft revised chapter had been sent to the TAHSC in February 2011. Dr Bonbon noted that this would be a priority for review at the coming TAHSC meeting. In response to a question from the TAHSC, it was noted that the Scientific Commission was comfortable with the coverage of disease surveillance and contingency plans under Chapter 1.4. and suspension of the original Chapter 8.12.

It was confirmed that the topic of virus sequestration was under discussion between the Scientific Commission and the Biological Standards Commission. No specific action was needed on the part of the TAHSC for the time being except to review the draft chapter proposal and circulate it for member comments.

10. New draft chapter on *Brucella*

The work done by the *ad hoc* Group on Brucellosis was commended by both the Scientific Commission and the TAHSC. It was noted that the Scientific Commission had made some minor modifications to the revised text. In response to a question from the Scientific Commission, the TAHSC advised that once the new chapter was adopted, the current chapters on bovine, ovine/caprine and swine brucellosis would be deleted. The new chapter would be titled 'Infection with Brucella abortus, *B. melitensis* and *B. suis*' to make the scope clear to Member Countries.

There was a short discussion about the proposal to clarify the scope of the chapter by replacing the text 'manage the human and animal health risk' by 'control infection with *Brucella*…' as the TAHSC considered that the current broader scope had not been requested by Members and that the text might not adequately cover all measures relevant to controlling infection in humans and animals. The Scientific Commission agreed that the scope of the *Terrestrial Code* was not to describe all control measures as the *Terrestrial Code* was not intended to be an exhaustive textbook on animal diseases.

11. Revision of the rabies chapter

Similar to Brucellosis, there was discussion of the proposed scope in the revised chapter on rabies, which established the objective of 'ensuring human and animal health'. The Scientific Commission highlighted that the revision had taken into account the global 'one health' initiative and concerns about the growing number of human rabies cases transmitted through dog rabies.

12. Future work on invasive alien species (IAS)

The Scientific Commission noted that Dr Francois Diaz had been designated as the focal point for work on IAS in the Scientific and Technical Department. It was also noted that the International Trade Department had an established contact with the Convention on Biological Diversity. The Scientific Commission recommended close collaboration between the two Departments on the selection of members of the *ad hoc* Group.

13. Coordination on dates of February meetings of the two Commissions

The Scientific Commission underlined the importance of having a joint meeting in February 2012. The Scientific Commission would meet in the week of 13 February 2012 and it was agreed that the TAHSC would consider meeting on 13 – 27 February.

14. Other issues

The TAHSC enquired on the status of discussion regarding revision of BSE surveillance in view of the OIRSA request. A query was being addressed to the authors of the BSurv model as requested by the Scientific Commission to see if amendments to the existing surveillance guidelines for BSE could possibly meet certain Member Countries' request as reflected in the request from the OIRSA.

13. Update of the Working programme of the Scientific Commission 2011/2012

The working programme of the Commission for 2011/2012 was reviewed and updated in accordance with Member Countries needs and issues raised at the 79th General Session.

14. Next meeting of the Scientific Commission for Animal Diseases

The next meeting of the Commission would be from 13 to 17 February 2012.

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…/Appendices

Appendix I

MEETING OF THE OIE COMMISSION FOR ANIMAL DISEASES

Paris, 29 August – 2 September 2011

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Agenda

1. Adoption of the agenda

2. Feedback from the 79th General Session of the OIE, May 2011

3. Report of the meeting of the Scientific Commission for Animal Diseases of 1 - 4 February 2011

3.1. Guide on Terrestrial Animal Health Surveillance

3.2. Revision of the BSE surveillance model

3.3. Livestock-wildlife interface policy

3.4. Maintenance of disease status, and the mandate of the Commission in the event of perceived threat of officially allocated status

3.5. Vector surveillance and how to prove absence of vectors in relation to disease freedom

4. Review of reports of *ad hoc* Group meetings

4.1. Report of the *ad hoc* Group on Epidemiology: 1 to 3 March 2011

4.2. Report of the *ad hoc* Group on Epizootic haemorrhagic disease (EHD): 15 to 16 March 2011

4.3. Report of the *ad hoc* Group on rabies: 20 – 22 April 2011

4.4. Report of the *ad hoc* Group on *Peste des Petits Ruminants (PPR)*: 14 to 16 June 2011

4.5. Report of the *ad hoc* Group on antimicrobial resistance: 20 to 22 June 2011

4.6. Report of the *ad hoc* Group on the Evaluation of the Foot and Mouth Disease Status of Members: 27 to 29 June 2011

4.7. Report of the *ad hoc* Group on Honey bee diseases: 5 to 7 July 2011

4.8. Report of the *ad hoc* Group on the official disease status recognition for Classical swine fever: 19 to 21 July 2011

4.9. Report of the *ad hoc* Group on Brucellosis: 20 to 22 July 2011

5. Rinderpest

5.1. Global contingency plan for rinderpest

6. Foot and Mouth Disease (FMD)

6.1. Information from the OIE/FAO FMD Reference Laboratories network

6.2. Follow up on the FMD outbreak control situation in Korea, Botswana and South Africa

6.3. Progress on the Global Strategy for FMD Control

6.4. Feedback from and follow up to the OIE FMD expert mission to the Thrace region and the outbreak of FMD in Bulgaria

6.5. Planned OIE FMD expert missions (Andean countries, Southern Africa)

6.6. Update on standing operating procedures for official disease status recognition

6.7. Procedural aspects for zoning, including protection zones for official FMD status

6.8. Requests to the Commission on information related to FMD vaccination and official disease status recognition

6.8.1. Request regarding the vaccination of zoo animals within a country free of FMD without vaccination

6.8.2. Request for a field safety trial for an adenovirus-vectored vaccine for FMD

7. Evolution of glanders in the Middle East

8. Update on scheduled or recently held OIE scientific conferences

9. Update on OIE One Health Activities

9.1. Meetings and Conferences

9.2. Pilot "One Health" PVS activities

9.3. Update on the Emerging Pandemic Threats Programme Activities in the OIE

10. Working Group on Wildlife Diseases (WGWD)

10.1. Review of the working programme and agenda of the meeting of the WGWD

11. Issues referred to the Commission by the Biological Standards Commission

12. Issues referred to the Commission by the Code Commission

12.1. Member Country comments on the revised SVD chapter

12.2. Member Country comments on the revised chapter on criteria for listing diseases

12.3. Report of the *ad hoc* Group on zoonotic parasitic disease

12.4. Comments of Brazil and Code Commission on the 'Generic Checklist on the Practical Application of Compartmentalisation'

12.5. Chapters with the OIE Member Country comments to be addressed

12.5.1. Chapter 15.2. Classical Swine Fever (CSF) with Member Country comments on the proposed revision

12.5.2. Chapter 12.1. African horse sickness and extract of Chapter 1.6. Questionnaires (African horse sickness) with Member Country comments on the proposed revision

12.6. Joint discussions with the Code Commission

13. Update of the Working programme of the Scientific Commission 2011/2012

14. Next meeting of the Scientific Commission for Animal Diseases

MEETING OF THE OIE COMMISSION FOR ANIMAL DISEASES

Paris, 29 August – 2 September 2011

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Appendix III

Original: English
March 2011

MEETING OF THE OIE *AD HOC* GROUP ON EPIDEMIOLOGY

Paris, 1 – 3 March 2011

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The OIE *ad hoc* Group on Epidemiology was welcomed by Dr Lea Knopf from the Scientific and Technical Department, who gave an overview on the main topics on the agenda. She provided additional information on the topic-specific discussions on the work of the *ad hoc* Group on Epidemiology that had taken place at the last meeting of the Scientific Commission held early February 2011, notably on the continued discussion between Specialist Commissions on the draft policy paper on the livestock-wildlife interface, the last report of the Group and the evolution of the 'Guide on Terrestrial Animal Health Surveillance'.

1. Adoption of the agenda and appointment of a rapporteur

The meeting was chaired by Dr Cristóbal Zepeda and Dr Jeffrey Mariner was designated as rapporteur. The adopted agenda and list of participants are attached as Appendices I and II, respectively.

2. Development of generic guidelines for disease control

The Group discussed the form that the 'Generic Guidelines for Disease Control' (Guidelines) document should take, the level of detail that should be provided and the appropriate audience. The Group considered that programme planners and decision-makers were the audience. It was the Group's understanding that the Guidelines would not take the form of a manual. The Group noted that many of the points identified for consideration in the Guidelines would require significant thought and discussion when they came to specific application in an actual disease control programme. For example, the appropriate level and type of movement control would be highly dependent on the nature of the disease targeted for control and the production and marketing systems in place, i.e. the overall setting in which the control programme was being carried out. The Guidelines did not attempt to prescribe specific applications for particular purposes.

It was agreed that the best approach was to provide a comprehensive outline to the Scientific Commission with the suggestion that the elaborated Guidelines should at a later stage be included as a Chapter in the *Terrestrial Code*. It was considered that the Guidelines may equally form the basis for the future OIE endorsement of national FMD control programmes.

The Group reviewed the outline prepared in the previous meeting and developed a statement of objectives for disease control. The Group discussed at length whether the Guidelines should begin by outlining priority setting processes for setting disease control objectives or they should assume that national priorities had been appropriately established. It was brought to the attention of the Group that a manual and a report on priority setting, a joint-study by the European Commission and OIE, had recently been published on the OIE website, entitled 'Listing and Categorization of Priority Animal Diseases, Including those Transmissible to Humans.' The Group agreed that the Guidelines should make a reference to this document and assume that specific disease targets had been appropriately set.

The Group considered the attributes of diseases that make them amenable to eradication and developed a table to help decision-makers consider the range of factors that should be taken into account in setting programme outcome targets (e.g. control versus eradication). The decision on the desired endpoint was key to good strategic planning as it set the stage for the selection of appropriate tools and methods for the disease control programme.

The Group discussed the role of strategic planning and how that related to programme management. The Group distinguished between adjustable approaches to strategic management and more day-to-day management of programme implementation and noted that both issues should be addressed in the Guidelines.

The Group found that several topics of interest to the Guidelines were covered under separate OIE documents and *Terrestrial Code* chapters. In these cases, the Group felt it was best to introduce the topics in the Guidelines and to make reference to the appropriate documents for further information and elaboration. In the case of the *Terrestrial Code* Chapter 1.4. on Surveillance (Article 1.4.7), the Group felt that this section on surveillance for distribution and occurrence of infection should be expanded to include further guidance on surveillance for endemic diseases.

3. Follow up on the future 'Guide for Terrestrial Animal Health Surveillance'

The Group discussed the current draft of the 'Guide on Terrestrial Animal Health Surveillance' and felt the handbook was not meeting the original objective, namely to provide conceptual guidance in the planning, implementation and assessment of surveillance systems. The Group recommended that to ensure its usefulness, the scientific Commission and OIE consider transforming the Guide into a framework for the development and assessment of surveillance systems designed to complement the PVS tool (components associated with animal health surveillance). Such a PVS surveillance component tool should embrace the principle of equivalence and emphasize expected outputs of the surveillance system rather than prescribe specific methods. The combination of a PVS Surveillance System Tool and a complimentary Guide would be very useful and assist the OIE in promoting effective surveillance systems.

The Group noted that a good example was the current USA/CDC guideline for public health surveillance[1]. However, the CDC guidelines were aimed at surveillance systems for endemic diseases. In animal health, the goal of many programmes had been disease eradication, therefore specific guidelines to assess disease freedom and certification procedures were needed. For other diseases, the main objective had been to mitigate impact of disease (disease control). The guidelines should provide guidance to assess surveillance for disease programmes with different objectives.

The Group observed that the current draft tended towards a survey of methods rather than a practical tool for decision-makers and managers of surveillance systems. Practical examples or case studies for key concepts were needed. The current Guide lacked a unified thread and would benefit from a clearer vision.

4. Feed-back from the Technical Consultation in Support of the OIE Emerging Pandemic Threats Program activities Paris, 25-27 January 2011

The Group reviewed the report of the Technical Consultation and was debriefed on the meeting by Jennifer Lasley (Project Coordinator, Scientific and Technical Department). As the context of the meeting was the IDENTIFY Project rather restrained to laboratory capacity building, the report largely focused on sample collection, transmission and testing issues. The Group commended the outcome of the meeting, which had thoroughly addressed laboratory issues. The Group felt there were a number of strategic areas central to the issue of emerging animal disease surveillance that required clarification for OIE in order to provide effective leadership on the subject. The Group made the following observations:

- It would be helpful to define 'emerging disease' in the report to clarify the objectives and scope of emerging disease surveillance.

- Surveillance systems were combinations of complementary sets of active and passive activities to detect and characterize events. The OIE discussion on emerging disease surveillance should address the broader issues of effective event detection and organizational and methodological challenges to surveillance systems.

[1] available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm

- It would be useful to explore the linkages between surveillance and response to ensure that surveillance information results in prompt action.

- The challenging nature of emerging disease surveillance as a novel area should be recognised where considerable research and learning would be needed in the process of developing reliable systems.

- The roles, inter-relationships and processes governing interactions of the various organizations working in the area of emerging disease surveillance at national, regional and international levels needed to be explicitly considered.

- The integration of emerging animal disease surveillance into broader initiatives for 'One Health initiatives' should be clarified.

- At present, methods for understanding the pathological or pandemic potential of newly identified agents were not well developed. It would be useful if capacities and challenges in this area were documented.

- Clarification was needed on how the OIE mandate, policies and OIE international standards could appropriately integrate emerging disease surveillance within OIE.

The *ad hoc* Group suggested that clarification of the above issues would better position the OIE to facilitate the establishment of effective emerging animal disease programmes. The Group reviewed the current definition of emerging disease in the *Terrestrial Code* and felt that the inclusion of introductions of disease to new geographic areas did not constitute disease emergence. The spread of disease should not be considered as an emergence unless the events reflected an evolution in the biology or ecology of the disease or the emergence of a new pathogen. For example, the current definition of emerging disease in the OIE *Terrestrial Code* would classify the last FMD outbreak in Britain as an emerging disease although nothing changed in the underlying epidemiology of FMD.

5. Next meeting of the *ad hoc* Group on Epidemiology

The Group agreed on the dates for next meeting: 20 to 22 September 2011.

6. Adoption of the draft report

The *ad hoc* Group reviewed and amended the draft report provided by the rapporteur. The Group agreed that the report captured the discussions and therefore could be adopted without additional circulation to the Group for comments.

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…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON EPIDEMIOLOGY

Paris, 1 – 3 March 2011

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Agenda

1. Adoption of the agenda and appointment of a rapporteur
2. Development of generic guidelines for disease control
3. Follow up on the future 'Guide for Terrestrial Animal Health Surveillance'
4. Feed-back from the Technical Consultation in Support of the OIE Emerging Pandemic Threats Program activities Paris, 25-27 January 2011
5. Next meeting of the *ad hoc* Group on Epidemiology
6. Adoption of the draft report

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Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON EPIDEMIOLOGY

Paris, 1 – 3 March 2011

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Appendix III

Generic Guidelines for Disease Control

(Version 03 March 2011 ad hoc *Group on Epidemiology)*

A. Introduction

The objective of these generic guidelines is to provide a framework for countries to establish disease control priorities, strategies and policies to achieve the desired goal of specific animal disease control programmes. The guidelines are not intended to be a prescriptive list but rather a conceptual framework that can be adapted to a particular national and epidemiological context.

These guidelines are intended to help countries identify priorities, objectives and desired endpoints of disease control programmes. Disease control programmes are often established with the aim of eventual eradication of agents at a country, zone or compartment level. While this approach is desirable, the needs of stakeholders may require a broader range of outcomes. For some diseases, eradication may not be economically or practically feasible and options for sustained mitigation of disease impacts may be needed.

It is important to clearly formulate the programme goals and these may range from simple mitigation of impacts to disease control, progressive control or eradication of the disease. These guidelines highlight the importance of economic assessment of disease intervention options in the design of programmes taking into consideration effectiveness, feasibility of implementation, as well as costs and benefits.

It is assumed that the country has determined its disease control priorities and these guidelines are intended to help Members in the development and implementation of a specific animal health programme that includes objectives, policies and strategies adapted to the full range of national needs. Specific outputs of this process will include a **problem statement**, a **control programme strategy** and an **implementation plan**.

B. Problem statement

The country should clearly state the rationale for establishing a disease control programme. Consideration should be given to public health, food safety, food security, biodiversity and socioeconomic aspects.

The justification for the disease control programme should include a summary of the current knowledge about the epidemiological situation within the country detailing:

1. Description of the disease situation
2. Description of disease impacts (public health, food safety, food security and socioeconomic) and how these are distributed among stakeholders
3. Identification and engagement of stakeholders

C. Control programme strategy

The desired endpoint of a control programme should be defined from the outset. Although eradication has traditionally been the goal for many disease control programmes it may not always be achievable within a reasonable timeframe or at an acceptable cost. The epidemiology of the disease along with the availability of technical tools as well as social and economic considerations dictate if eradication is achievable or if control at a certain prevalence level is adequate. For some diseases, or in certain situations, the emphasis of a programme should be on reducing the health and economic impact of the disease. Some of the factors to consider are listed below.

Biological factors	Availability of technical tools	Socioeconomic considerations
− Species affected	− Diagnostic tests	− Cost and benefits of intervention
− Density of susceptible species	− Vaccines	− Ease of implementation
− Wildlife reservoir	− Treatment	− Stakeholder engagement
− Vector transmission	− Effectiveness of isolation/quarantine	− Political will
− Transmissibility	− Disinfection	
− Current extent of disease		
− Survival in the environment		
− Carrier state		
− Ease of clinical recognition		

D. Strategic planning

The development of a strategic plan should be based on the choice of the endpoint of the programme. The choice of intervention options should be based on their biological effectiveness, ease and cost of implementation to fit the needs of the programme, as well as the benefits that are expected by reaching the objectives of the programme. Value chain analysis helps understand the role of different players within the production system, identify critical control points to target measures and provide an indication on the incentives for and feasibility of implementation of the programme. The decision on the most appropriate intervention options should take into account cost-benefit considerations, in conjunction with the likelihood of success of a particular set of disease control measures.

Institutional analysis examines the organizations involved in delivering services and the processes that govern their interaction. This type of analysis would be helpful to inform the strategic planning process and identify areas where a change would enable better programme implementation and facilitate effective collaboration.

The programme should include a continued review process to assess the effectiveness of the interventions that are being applied, identify gaps in knowledge and adapt the goals, objectives and methods or actions as required.

The programme should take into consideration the distribution of costs and benefits among different stakeholders and understand the factors limiting stakeholder participation in programme activities. These factors can affect the optimal selection of interventions. Programme policies need to include incentives for engagement including, for example, additional services for the producer, appropriate compensation schemes, adding value to the final product and protecting public health. In addition, it may be necessary to include measures to ensure compliance including movement restrictions and fines.

E. Implementation plan

A disease control programme should be based on an efficient and effective veterinary service. Countries are encouraged to follow the provisions of Chapter 3.1 of the *Terrestrial Animal Health Code* (*Terrestrial Code*), as well as to undergo a Performance of Veterinary Services (PVS) evaluation and address the gaps that may be identified. In addition, the programme should have political support, and sustainable sources of funding including government and private stakeholder contributions.

The implementation plan should address the following:

1. Regulatory framework

The disease control programme should be supported by effective legislation at the primary and secondary levels. Countries are encouraged to follow the OIE Guidelines on Veterinary Legislation (http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/A_Guidelines_VetLeg.pdf). The disease should be notifiable throughout the country. The regulatory framework for the disease control programme should be flexible enough to be adapted to evolving programme needs.

2. Epidemiological situation

The implementation of the programme needs to take into consideration:

a. Knowledge of livestock production systems
b. Geographical and temporal distribution

c. Species affected
d. Zoonotic potential
e. Risk factors and critical control points
f. Vectors
g. Carriers
h. Reservoirs

3. Disease surveillance

The underpinning of the disease control programme activities is an effective surveillance system that provides guidance on priorities and targets for the application of interventions. The surveillance system should consist of general surveillance activities reinforced by pathogen specific activities. A clear case definition and outbreak investigation procedures are required. The provisions of Chapter 1.4 of the *Terrestrial Code* on animal health surveillance should be referred to.

4. Diagnostic capability

The programme needs to be supported by diagnostic facilities with adequate capacity. The choice of diagnostic tests applied should ensure detection and confirmation of the disease. The tests should follow the specific requirements in Chapter 1.1.4 on Principles of Validation of Diagnostic Assays for Infectious Diseases and the disease specific recommendations in the *OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*. Diagnostic facilities, either official or accredited, should be under a quality assurance scheme coordinated by the designated national reference laboratory (ies). The latter should establish communication with an OIE reference laboratory for the particular disease. National and sub-national laboratories need to ensure that diagnostic results are communicated to the national surveillance system, field veterinarians and producers. National laboratories are also needed to provide independent and impartial quality control of vaccines. When advantageous, national laboratories are encouraged to submit samples to OIE reference laboratories for confirmation of findings and developing an understanding of the molecular epidemiology of the agent.

5. Traceability

An effective traceability system facilitates the identification of affected herds or flocks. The existing traceability system may need to be adapted to take into account the epidemiology of the disease particularly the length of the incubation period. The design of the traceability system should follow the provisions of the *Terrestrial Code* in particular, Chapter 4.1 on General Principles on Identification and Traceability of Live Animals and 4.2 on Design and Implementation of Identification Systems to Achieve Animal Traceability.

6. Vaccination

a) Role of vaccination

Vaccination is an essential tool in the control of many diseases. However, vaccination on its own will not usually achieve the desired results unless the vaccination programme is part of an integrated control strategy. Depending on the epidemiological situation, the pattern of animal movements, population density and production systems within the country, targeted vaccination may be more effective than systematic mass vaccination. Where appropriate, vaccination campaigns should be serologically monitored for their effectiveness to ensure that herd-level immunity objectives are being met.

b) Vaccine quality

A vaccine quality assurance programme ensures the purity, safety, potency of vaccines as well as measures their efficacy in relation to the circulating strains. Vaccines used within control programmes should be licensed under the authority of the official veterinary services in accordance to international standards and preferably tested independently for safety and potency.

c) Vaccine delivery

Effective delivery of vaccine, including preservation of the cold chain and proper administration, is the cornerstone for reaching an adequate level of population immunity. Governmental and/or private schemes can be established to ensure vaccine distribution at the local level.

d) Vaccine and antigen banks

Banks could be useful to ensure sufficient stocks are available if targeted vaccination is needed. Such banks may be held at national or regional levels.

7. Emergency preparedness and response

Countries should develop emergency preparedness and response plans to be applied in case of a disease introduction into a formerly free zone or an unexpected increase in incidence in areas that have reached an appropriate level of control or in the case of disasters. These plans are especially important for rapidly spreading diseases. Emergency response plans should be up to date, tested in the real world setting and embedded in the legal framework. Emergency funds should be available to cover operational costs and indemnities. The chain of command and coordination with all key players, where necessary, including the police and armed forces, should be well established to ensure control efforts are executed rapidly and with success. Contingency plans need to be in place when immediate response is needed, including critical actions that need to be taken when a sudden outbreak of a disease is notified. Arrangements need to be in place to ensure rapid communication at all times. It is also important that these plans are coordinated on a regional level, particularly for transboundary animal diseases.

When the disease control measures applied have a significant economic impact, appropriate compensation mechanisms are needed to ensure cooperation by farmers. Funding is essential but is often lacking leading to non-compliance, if the disease occurs again. Partnerships between government and the private sector have proven effective to develop sustainable contingency funds in several parts of the world.

8. Regional integration

Many diseases are considered transboundary animal diseases and require a regional approach to disease control. Regional and inter-sectorial agreements, including the chief veterinary officers in each country and representatives from international and other relevant regional organizations should be established to ensure proper coordination. Where possible, regional funds could be pooled to ensure a source is available in an emergency and to protect the region from disease incursion and spread.

9. Social participation

Communication, awareness programmes and programme ownership need to be in place. Stakeholders should be involved in the development, planning, implementation and management of the programme. This should be an on-going process.

10. Disease control measures

Disease control measures to be applied in the programme can be implemented by the *Veterinary Authority*, or private entities or a combination of both. In any event, the overall responsibility for oversight of the programme remains with the *Veterinary Authority*. The basic principles of a control programme and the measures to address them include:

a) Identification of foci of infection

- Early detection and diagnosis
- Disease reporting
- Surveys
- Abattoir surveillance
- Epidemiological and outbreak investigation

b) Prevention of infection of susceptible hosts,

- Vaccination
- Quarantine
- Animal movement control
- Vector control
- Public awareness and communication

c) Elimination of the infectious agent

- Cleaning, disinfection and rest period
- Animal treatments
- Treatment of products and by-products
- Test and isolation
- Test and slaughter
- Stamping-out

The management of the application the disease control measures should follow standard operating procedures including:

- Implementation, maintenance, monitoring of the measures
- Application of corrective actions
- Verification of the process
- Record keeping

11. Assessment of programmes

The programme should include a continued review process to assess the effectiveness of the interventions that are being applied, identify gaps in knowledge and adapt the goals, objectives and methods or actions as required. This process should begin with the establishment of baseline data on the epidemiological, economic and social impact of the disease. The programme should collect data on process and impact indicators. This enables measurement of the effectiveness of interventions on epidemiological indicators such as incidence and prevalence, and identify areas needing strengthening.

12. Role of research in support of disease control programmes

During the strategic planning and assessment of programmes certain areas needing further research may be identified. Communication with national and international research institutions should be established to address programme needs.

13. Training and capacity building

Institutional capacity building is important in development of systems and infrastructure. The personnel in charge of implementing the measures within the programme need to be adequately trained and updated on the current knowledge on the disease. Veterinary accreditation schemes of private veterinarians and veterinary para-professionals can be a useful tool to increase the veterinary presence in the field, however training and supervision coordinated by the official veterinary service is required.

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Appendix IV

Original: English
March 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON EPIZOOTIC HAEMORRHAGIC DISEASE (EHD)

Paris, 15–16 March 2011

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The meeting of the OIE *ad hoc* Group on Epizootic Haemorrhagic Disease (EHD) was held at OIE Headquarters, Paris from 15-16 March 2011. Dr Kazuaki Miyagishima, Deputy Director General, welcomed the members of the Group on behalf of Dr Bernard Vallat, the Director General of the OIE. He gave an overview on the procedure for development and adoption of a new chapter of the OIE *Terrestrial Code.*

1. Adoption of agenda and appointment of a chairman and a rapporteur

The meeting was chaired by Dr Peter Daniels and Dr Stéphan Zientara was designated as rapporteur. The adopted agenda and list of participants were attached as Appendices I and II, respectively.

2. Adoption of Terms of Reference of the *ad hoc* Group

The draft terms of reference for this meeting as provided by the OIE Scientific Commission for Animal Diseases were accepted by the Group.

3. Development of a draft chapter for EHD of the *Terrestrial Code*

In its deliberations, the Group recognized that Epizootic Haemorrhagic Disease Virus (EHDV) was not regarded as a significant pathogen of livestock in many parts of the world.

Different documents were analysed including the European Food Safety Authority (EFSA) scientific opinion on EHD[1], which included a comprehensive literature review.

In developing its recommendations, the Group used the revised Bluetongue (BT) chapter of the *Terrestrial Code* as a template and produced recommendations under the same headings used in that document. Specifically, in relation to those headings, the Group offered the following explanations to accompany the draft chapter of EHD.

General provisions

In developing the "general provisions", several points were emphasized: There was a considerable lack of information regarding important aspects of the epidemiology (susceptible species, geographical distribution, presence of competent vectors in various regions, etc.) and the pathogenesis (precise duration of viraemia and tissue tropism in different animal species, genetic basis of virulence of the different virus strains, etc.) of EHDV. In comparison with bluetongue virus (BTV), relatively few studies had been undertaken on EHDV.

- Definition of infective period: given that viraemia in EHDV infected animals was erythrocyte associated, like BTV infection, duration of viraemia was likely to be similar in BTV and EHDV infected animals. There were different data in the literature regarding the duration of viraemia in EHDV infected animals, similar to the situation with BTV: reported viraemia lasted between approximately 14 to 50 days in cattle

[1] Scientific Opinion on Epizootic Hemorrhagic Disease, EFSA Panel on Animal Health and Welfare (AHAW), *EFSA Journal* 2009; **7**(12): 1418

and 28 days in sheep (EFSA opinion). In the absence of scientific data proving that duration of viraemia was different in BTV and EHDV infected animals, 60 days was a conservative estimate of the maximum duration of viraemia in EHDV infected animals. However, the Group did recommend further studies on the duration of EHDV viraemia in different animal species. **Proposal of the Group: "The infective period for EHDV shall be 60 days".**

- The Group recommended not including a paragraph on geographic distribution of EHDV (as included in the BT Chapter) because there were insufficient data to precisely determine the global distribution of the virus. In domestic animals, EHDV infection was usually asymptomatic so, in the absence of specific serological and/or virological surveillance, it was difficult to confirm the absence of virus circulation. EHDV was a *Culicoides* transmitted *Orbivirus* that likely had a similar global distribution as did BTV. However, the vectors were especially poorly described for EHDV. **Since EHDV infection was unlikely to result in clinical disease in livestock, its distribution could best be determined by surveillance.**

Safe commodities (Article 8.3.2 in the BT Chapter)

To recognize wildlife products, "antlers and hooves" were added.

The Group referred to consideration of point 5 ("in vivo derived embryos") to the Scientific Commission for clarification. The Group felt it did not have sufficient expertise to analyse the different categories of products specifically *in vivo* versus *in vitro* bovine embryos and oocytes. The Group also was further confused by the use of these terms (*in vivo* and *in vitro*) in different sections of the BT Chapter. The same paragraph as included in the BT Chapter was proposed, but reference to BTV8 (linked to the specificity of this serotype) was deleted.

Free country or zone (Article 8.3.3 in the BT Chapter)

In revising this article, the following points had been taken into account for EHDV:

- The surveillance described in the BT Chapter was specific for BTV. The surveillance of EHDV was complicated by the absence of clinical signs in domestic animals, the infection of wild animals (deer in particular) and the lack of knowledge on insect vectors. Therefore, EHDV surveillance should be different from BTV surveillance.

- Commercial vaccines were not widely available for EHDV. An inactivated vaccine and a live attenuated vaccine were available for Ibaraki virus (EHDV2) infection in Japan. Vaccines were not generally available for the other serotypes. Hence provisions related to vaccination would be inappropriate in the EHDV Chapter at this time.

- **Paragraph 4 was deleted.** Given the limited animal health impact of EHDV in livestock, the Group believed and recommended that it was not necessary to be prescriptive in providing details regarding zoning. The Group further considered that the issue of surveillance was adequately covered in paragraph 1.

Seasonally free zone (Article 8.3.4 in the BT Chapter)

By extrapolation from other *Culicoides* transmitted *Orbivirus* infections, it was anticipated that the infection would be highly seasonal. Therefore, a seasonally free zone was biologically both feasible and justifiable. However, given differences in the global epidemiology of EHDV infection, it was difficult to propose criteria that could be used in all countries and that could definitively prove the absence of competent *Culicoide*s vectors in a country or in an area.

Recommendations for importation from free countries or zones (Article 8.3.6 in the BT Chapter)

While the general epidemiological features of BTV and EHDV were similar, the points 4 and 5 c) of the BT Chapter were deleted because few data were available regarding the efficacy and innocuity of vaccines against EHDV.

In this and subsequent sections, the phrase "where EHDV is of concern", was added to convey the Group's recognition that EHDV was not regarded as a significant pathogen of livestock in many parts of the world.

Recommendations for importation (Articles 8.3.7 to 8.3.14 in the BT Chapter)

Articles 8.3.7 and 8. 3. 9

Given the similarities of BTV and EHDV infections, and the absence of any data to the contrary, a conservative approach identical to that used in the BT Chapter had been adopted.

Paragraph 4 was deleted in all articles (see comments above).

Articles 8.3.10 to 8.3.14

There were limited data specifically addressing EHDV infections of semen or embryos, however there was no reason to believe that EHDV would behave differently in this regard than BTV. There were substantial data regarding the risk of BTV transmission via semen and embryos. Therefore, the same criteria were adopted for EHDV as those developed for BTV.

Protecting animals from* Culicoides *attack (Article 8.3.15 in the BT Chapter)

Vector-protected establishment:

The recommendations for such establishments were originally developed for virulent bluetongue and African horse sickness (AHS). For EHDV, the recommendations seemed overly severe, and perceived risk mitigation disproportionate for most circumstances. However, these recommendations provided the measures necessary to protect animals against vector attacks and were justified for severe diseases like AHS so the criteria in the BT Chapter were reproduced here.

During transportation

Appropriate risk mitigation procedures for EHDV might be indicated in certain circumstances such as during outbreaks, but the Group favoured a less prescriptive approach than the one provided in the BT Chapter: only points 2 and 3 were left as potentially important examples. The Group expressed concern over the feasibility of certain requirements in the BT Chapter, such as the recommendations for *Culicoides* proof netting.

Surveillance (Article 8.3.16 in the BT Chapter)

The epidemiology of EHDV infections differed widely amongst the regions of the world. It was impossible to provide prescriptive guidelines that suited all epidemiological situations. Moreover, there was a lack of relevant information to make sound recommendations on EHDV surveillance because of uncertainties (knowledge gaps) regarding vectors, target animal species etc.

General aspects relevant to the surveillance of EHDV were addressed in other sections of the *Terrestrial Code* that refer to surveillance of vector-borne diseases (Chapters 1.5, 8.3 and 12.1); in particular, the principles on surveillance of *Culicoides* transmitted-orbiviruses in the chapters related to BTV and AHS could be followed. Articles 8.3.18 to 8. 3. 21 (included) were deleted because they were highly specific for BTV.

4. Considerations for reviewers of the current Bluetongue & EHD chapter of the *Terrestrial Manual*

The Group concluded that a specific chapter on EHDV of the *Terrestrial Manual* was more than desirable. Additional input from an expert group would be required, and this logically could be a sub-committee of the OIE Bluetongue Reference Laboratory Network, but with the inclusion of specialists familiar with the unique features of EHDV, e.g. with extensive experience with the laboratory testing of EHDV infections in livestock or wildlife species. For example, it was necessary to come up with a common position on the number of serotypes (variously designated as 7 to 10 according to different reports). The following recommendations to reviewers of the EHD/BT chapter of the *Terrestrial Manual* were agreed on by the Group:

- A separate EHD Chapter of the *Terrestrial Manual* was recommended as the long term goal to complement the proposed Chapter on EHDV of the *Terrestrial Code*.

- As there was no specific description of test methods for EHD in the current chapter of the *Terrestrial Manual,* test methods for serology and agent detection and characterization for EHDV should be included. For serology, both C-ELISA for EHDV group antibody detection and a microtitre or plaque reduction virus neutralization tests for characterization of serotype specific antibody responses were needed. For virus detection, a real time PCR test was considered useful for rapid, specific and sensitive identification of animals that had been recently infected with EHDV. This should be supported by virus isolation, noting that the preferred isolation system for EHDV could be different from the preferred methods for BTV. Guidance on serological and/or molecular determination of serotype of EHDV isolates was needed.

- It was recommended that these tests, C-ELISA for EHDV group antibody detection, virus neutralization test and a real time PCR test, be prescribed tests.

- Agreement on the current virus isolates that represented the type of strains of each recognized serotype would be helpful as a reference, to then allow the preparation of OIE recognized standard reagents.

- It was recommended that the OIE facilitate creation of the EHD Chapter of the *Terrestrial Manual* utilizing the expertise of the existing OIE Bluetongue Reference Laboratory Network, in part to ensure harmonization of the approach and agreement between the two chapters.

- Although the limited animal health impact of EHDV infections did not create a need for vaccines in most countries in the world, the Group recognized that there was a limited number of EHDV vaccines for selected serotypes (serotype 2 in particular) available in some countries. Hence the chapter of the *Terrestrial Manual* should address issues of vaccines.

The Group was informed that these recommendations would be brought to the attention of the OIE Biological Standards Commission through the Scientific Commission.

5. Finalisation of draft report

The *ad hoc* Group reviewed and amended the preliminary draft report provided by the rapporteur. The Group agreed that the report of the meeting captured the major discussions, and would be considered final after being circulated electronically to allow for minor comments for a short period.

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…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON
EPIZOOTIC HAEMORRHAGIC DISEASE (EHD)
Paris, 15 - 16 March 2011

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Agenda

1. Adoption of agenda and appointment of a chairman and a rapporteur
2. Adoption of Terms of Reference of the *ad hoc* Group
3. Development of a draft chapter for EHD of the *Terrestrial Code*
4. Considerations for reviewers of the current Bluetongue & EHD chapter of the *Terrestrial Manual*
5. Finalisation of draft report

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Appendix II

MEETING OF THE AD HOC GROUP ON EPIZOOTIC HAEMORRHAGIC DISEASE (EHD)

Paris, 15 - 16 March 2011

List of participants

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Appendix V

Original: English
April 2011

MEETING OF THE OIE *AD HOC* GROUP ON RABIES

Paris, 20 – 22 April 2011

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1. Opening and adoption of agenda and appointment of a rapporteur

Dr Kazuaki Miyagishima, Deputy Director General of the OIE, welcomed the Group and commented on the important task of the Group to review the numerous OIE Member comments received after the revised *Terrestrial Code* chapter on rabies was circulated to all OIE Members by the Terrestrial Code Commission last September. He mentioned that the revision of the rabies chapter was considered a priority by the OIE and that if possible a consolidated, revised version should be ready for presentation to OIE Members during the forthcoming Global Conference on Rabies Control, 7 - 9 September 2011 in Incheon-Seoul, Republic of Korea.

The draft agenda for this meeting as provided by the Scientific Commission was adopted by the Group. The meeting was chaired by Dr Anthony Fooks, assisted by Dr Christine Fehlner-Gardiner and Prof. Louis Nel as rapporteurs. The Chair emphasised the amendments to be proposed should be science-based and the rationale for changes be in line with the principles of the *Terrestrial Code*.

The Agenda and list of participants are presented as Appendices I and II, respectively.

2. Feedback from the Scientific Commission for Animal Diseases (Scientific Commission) and Code Commission on the revised chapter proposed by the *ad hoc* Group

Dr Brückner, President of the Scientific Commission, shared the thoughts of the Scientific Commission on the way forward in the revision and finalisation of the *Terrestrial Code* Chapter 8.10. on rabies. There was a need to simplify the structure of the chapter focusing on the species posing the highest risk for transmission of rabies virus to humans and livestock. Dr Brückner advised the Group on the purpose of the chapter which should focus on the prevention of transmission of rabies to humans and provide recommendations to countries on risk mitigation concerning spread of rabies to new areas or species. The proposal of a new category of "free from dog-to-dog transmitted rabies" was critically commented on by various OIE Members, partly due to delay in delivering the report of the Scientific Commission to Members. Therefore the scientific rationale behind this major change had been accessible to OIE Members only at a very late stage. Dr Brückner informed the *ad hoc* Group participants about the future steps, i.e. consideration of the finalised version by the Terrestrial Code Commission in September 2011, followed by a second round of consultation of Members and the foreseen adoption of the revised rabies chapter by May 2012. The participants noted the comments and suggestions of the Scientific Commission.

3. Review of OIE Member comments on the circulated draft chapters on rabies (8.10.) and the model international veterinary certificate (15.11.) and finalisation of the draft chapters

The *ad hoc* Group reviewed the draft Chapter 8.10. on rabies of the *Terrestrial Code* taking into account the revisions of the August 2010 meeting and the comments of the OIE Members. The Group went through the OIE Member comments and observed that there were a number of topics that raised repeated concerns of several OIE Members, whereas other comments on proposals for detailed changes were more of singular nature. The Group decided to discuss the salient topics in the light of the overall approach and structure of the draft chapter before addressing smaller revisions. The summary of the main changes made is the following:

Focus on public health

Taking into account the 5th Strategic Plan of the OIE, the purpose of the *Terrestrial Code* chapter on rabies was redefined to specifically mitigate the risk of rabies to human health and the international spread of rabies. This approach was consistent with the expression of concern by the OIE on the worldwide prevalence of rabies in dogs and the resultant concerns for human exposures and mortalities.

Emphasis on dog rabies and establishment of a dog rabies-free category

The emphasis on dog rabies was an extension of the above philosophy. Rabies in dogs poses risks to humans, domestic and wild animals. This approach was intended to encourage countries to facilitate and achieve elimination of dog-mediated rabies. For this category of status the early detection was considered a key issue for the importation of dogs. Though the Group recognized that reservoir species (mainly carnivores) posed the greatest risk for rabies virus transmission to other animal species, for the purpose of the *Terrestrial Code* the use of specific definitions of reservoir and vector species for rabies could lead to ambiguity and was avoided.

Taxonomy of Lyssaviruses

The recent changes in nomenclature introduced by the "International Committee on the Taxonomy of Viruses" (http://www.ictvonline.org) and the emphasis of the chapter on dog-mediated rabies resulted in the focus of the chapter on "rabies virus". References to older nomenclature of Lyssaviruses were provided for clarity.

Terrestrial Manual

Changes to the *Terrestrial Code* chapter on rabies should not await updates to the *Terrestrial Manual*. Based on the OIE Member comments to the *Terrestrial Code* chapter, recommendations were made to the reviewers of the *Terrestrial Manual* to provide more detailed description and updates on recommended strategies for dog rabies vaccination campaigns. The Group referred to the 'Blueprint for Rabies Prevention and Control' where a useful compilation of aspects of dog vaccination campaigns was already available under http://www.rabiesblueprint.com/.

Animal groupings according to rabies risk

The *ad hoc* Group decided to re-group species according to risk for transmission of rabies virus to humans and animals when considering the importation recommendations to be applied. While equids theoretically posed a higher risk of rabies transmission to humans than other livestock (due to their more frequent and closer contact to people), horses that are subject to frequent international movements are routinely vaccinated against rabies. Moreover, the *ad hoc* Group recognized that other domestic livestock were susceptible to rabies, but that they posed a minimal risk to the introduction and spread of rabies.

Concerning the animal species posing a high risk of rabies virus transmission: References to ferrets were replaced by the terminology 'captive wild carnivores' in order to include in this category movement of other species (e.g. raccoons, skunks, exotic pet species) that may be kept and traded as pets. The terminology of 'captive wild carnivores' was adapted from the new definition '*captive wild animal'* one of the distinct sub-categories replacing the term 'wildlife' currently used in the *Terrestrial Code*.

Incubation period and infective period

References to time periods were made consistent throughout the text to reflect the considered incubation and infective periods. Additional references to horizontal *Terrestrial Code* chapters were added.

4. Other matters

OIE Global Conference on Rabies Control, 7-9 September2011, Republic of Korea (Incheon-Seoul)

The Group received an update by Dr Yong Joo Kim on the latest developments, both in the hosting country and at OIE. It was re-iterated that the conference aims at focusing at institutional or structural changes needed in the current practice of rabies control, be it at national or international level.

Upcoming international meetings on rabies (focus on animal rabies)

The Group discussed selected upcoming international events on rabies that take place on a regular basis. Opportunities and challenges for harmonisation of calendars of regional meetings were considered, a rotation system per continent/region was proposed. The participants could not fully agree on a rotation schedule as there were important regional specificities in rabies epidemiology and control strategies that needed a regionalised forum. The next scheduled meetings are:

- Rabies in the Americas (RITA http://www.rabiesintheamericas.org/home): 17-22 October 2011, San Juan, Puerto Rico, USA (in autumn 2012, Brazil will host the meeting)

- Southern and Eastern African Rabies Group (SEARG www.searg.info) meeting every 2.5 years, the last meeting was held late January 2011 in Maputo,Mozambique. The next meeting will be held in 2013 in Tanzania. The SEARG suggested creating a publication forum for the Africa region taking into consideration the model of the WHO Rabies Bulletin Europe. Other options were briefly discussed.

- Partners for Rabies Prevention (PRP http://www.rabiescontrol.net/EN/prp.html) meets 1-2 times a year usually around April and October. The next meeting (3-6 May 2011, Banna, Italy) will focus on updating and translation of the 'Blueprint for Rabies Prevention and Control' (canine rabies), the development of a rabies blueprint for rabies control in wildlife, and the ongoing project of the re-assessment of the global rabies burden.

Visibility of zoonoses on the OIE webpage

The Group acknowledged the new design and structure of the OIE webpage. The experts observed that zoonoses, in particular rabies, could receive in general more visibility on the OIE webpage, if compared to e.g. animal welfare and food safety pages that were very prominent on the front page.

5. Finalisation and adoption of the draft report

The *ad hoc* Group reviewed and amended the preliminary draft report provided by the two rapporteurs. The Group agreed that the report and revised chapters would be subject to a short period of circulation in the Group for minor comments and final adoption.

In his concluding remarks, the chair thanked the rapporteurs and all other participants of the *ad hoc* Group for their active participation and meaningful discussions.

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…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON RABIES

Paris, 20 - 22 April 2011

Agenda

1. Introduction, adoption of agenda and appointment of rapporteur
2. Feedback from the Scientific Commission and Code Commission on the revised chapter proposed by the *ad hoc* Group
3. Review of OIE Member comments on the circulated draft chapters on rabies (8.10.) and the model international veterinary certificate (15.11.) and finalisation of the draft chapters
4. Other matters
5. Finalisation and adoption of the draft report

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON RABIES
Paris, 20 – 22 April 2011

List of participants

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Appendix VI

Original: English
June 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON PESTE DES PETITS RUMIANTS

Paris, 14–16 June 2011

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1. Opening and Welcome Address

The OIE *ad hoc* Group on Peste des Petits Ruminants (PPR) met at the OIE headquarters from 14 to 16 June 2011. Dr Bernard Vallat, Director General of the OIE, welcomed the participants and thanked them for their contribution to OIE activities. He explained the objectives of the meeting, which were primarily to update the specific chapters on PPR of the OIE *Terrestrial Animal Health Code* (*Terrestrial Code*) (the chapter was last updated in 2000) and of the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (*Terrestrial Manual*) (the chapter was last updated in 2008). He called for discussions on the feasibility of a global control programme for PPR so that the OIE could be advised on the need for and viability of such an initiative and on a possible roadmap.

2. Adoption of the agenda and appointment of a chair and of a rapporteur

The Group nominated Dr Adama Diallo as chair and Dr Madhusudan Hosamani as rapporteur. The adopted agenda and list of participants are attached as Appendices I and II, respectively. Prof. Hassan Aidaros, representative of the Scientific Commission for Animal Diseases, could not attend the meeting. All participants signed a confidentiality undertaking, in line with the OIE procedures adopted at the 79th General Session of the World Assembly of Delegates to the OIE. The secretariat of the meeting was provided by Dr Joseph Domenech.

3. Adoption of the Terms of reference

The Group adopted the proposed Terms of Reference, which is attached as Appendix III.

4. Current situation of PPR in the world

The Group discussed the current disease status in the affected regions: PPR was endemic in many African countries from Northern Africa to Tanzania, in the Middle East, in Central and Southern Asia and in parts of China (People's Rep. of).

The different PPR viruses (PPRV) that have been isolated so far in all these areas were classified into four lineages. Until 2000, lineage 4 was confined to Asia and the Middle East. However this lineage had recently been identified in Africa – in Sudan in mid-2000 and in Morocco in 2008, the first PPR outbreak in that country. PPRV infection had also been identified in both Tunisia and Algeria. This situation, together with the first discovery of the disease in Uganda, Kenya and Tanzania in 2006–2007, indicated a shift in disease dynamics on the continent. While the 2008 outbreak in Kenya was severe with high mortality being recorded, the one that occurred in Morocco was mild in nature with moderate morbidity and mortality. However it had spread very quickly throughout the country through animal trade.

The situation in India was improving as a result of progressive mass vaccination – the disease incidence has been in decline over the past 5 years. The Government of India had launched a national control programme for PPR that would be run in three phases during India's 11th (2007–12) and 12th (2012–17) 5-year plan periods.

PPR was reported in China (People's Rep. of) in 2008 and again in 2010.

In Central Asia, PPR was reported in Tajikistan for the first time in 2004, although it appeared that PPR might have been present in the country for a long before.

In Tajikistan's neighbouring countries, serological surveys had demonstrated the presence of antibodies (in unvaccinated animals), suggesting endemic circulation of PPRV. In Afghanistan and Pakistan, PPR has been considered endemic since the 1990s.

In conclusion, the Group agreed that the disease was spreading in many regions of the world – Africa, the Middle East, Central and South Asia and China. It was possible that the disease had existed before, until it was recently identified in some of these affected regions, particularly in Central Asia. Indeed in the absence of proper diagnostics, the disease had often been misdiagnosed in favour of other diseases such as pasteurellosis, contagious caprine pleuropneumonia or rinderpest. It was imperative that all countries undertake surveillance for prompt disease reporting as PPR sensitive and specific diagnostic tools were currently available.

5. Review and update of the *Terrestrial Code*

5.1. *Terrestrial Code* Chapter 14.8 on Peste des petits ruminants

The Group discussed the Chapter 14.8 on PPR of the *Terrestrial Code*, which had not been updated since 2000.

Dr Alejandro Thiermann, President of the OIE Terrestrial Animal Health Standards Commission, joined the Group for this agenda item. He suggested that the Group carefully examine certain other chapters in the *Terrestrial Code* (e.g. rinderpest, classical swine fever, foot and mouth disease [FMD]), which could be used as templates for the PPR chapter, making sure that the revised chapter remains consistent with the chapter on PPR in the *Terrestrial Manual* and with other horizontal chapters of the *Terrestrial Code* (e.g. Chapter 1.4 on animal health surveillance, Chapter 2.1. on import risk analysis).

The Group agreed that the definition of susceptible animals should be better specified. Very few PPR cases were reported in domestic animal species other than sheep and goat, but there was no proof that these other domestic species, i.e. cattle, buffaloes and camels, would have any significant role in the PPRV circulation. Given the aim of avoiding any risk for importing countries, the Group agreed to add to the definition other susceptible species such as cattle, camel, buffalo and wild small ruminants.

The Group agreed that there was no evidence, at present, that commodities could be traded unconditionally from infected country without posing a risk of introducing the virus into an importing country. Therefore the Group decided not to add any specific articles stating that commodities could be traded without appropriate conditions/treatment until relevant research evidence was made available.

Most of the proposed changes or addition of new articles address the specific conditions to be applied when importing commodities from infected countries.

The Group agreed on the proposed new amendments to this chapter[1].

5.2. Chapters 1.4 (Animal health surveillance) and 2.1 (Import risk analysis) of the *Terrestrial Code*

The Group looked at the need to revise several horizontal articles in these two chapters of the *Terrestrial Code* so as to better address the PPR issues.

[1] The proposed amendments to the Terrestrial *Code* or *Manual* chapters will be presented in their final form by the relevant Specialist Commission for adoption by the World Assembly of Delegates to the OIE.

a) Peste des petits ruminants surveillance

The Group considered that Chapter 1.4 of the *Terrestrial Code* responded to the needs of PPR surveillance and did not require further amendments for the time being. This conclusion could be different if a global strategy for PPR eradication was to be developed and if PPR became a disease for which the OIE would officially recognise disease status of countries, as was currently the situation for FMD, bovine spongiform encephalopathy (BSE) and contagious bovine pleuropneumonia (CBPP) (see Section 9 of this report).

b) Import risk analysis

Similarly to PPR surveillance, the Group agreed to make no amendments to Chapter 2.1 on Import risk analysis.

6. Review of the recent research developments and research initiatives on peste des petits ruminants

Dr Geneviève Libeau introduced this item. Her presentation was followed by a discussion. The group prepared the following conclusions and recommendations:

6.1. Serological tests

Serological tests were now able to promptly detect new outbreaks of PPRV and to obtain data on the incidence and prevalence in infected areas:

– A set of ELISAs[2] were available, some of them being commercialised worldwide. The H- or N-based competitive ELISA (C-ELISA) offered many advantages and had a high degree of correlation to the gold standard assay – the Virus neutralisation test.

– In addition, pen-side tests such as chromatographic strip tests had been developed and marketed for PPR as was previously done for rinderpest.

6.2. Molecular epidemiology

It would be crucial to provide laboratories with efficient tools that allow both the early detection of PPR emergence or re-emergences and conclusions to be reached on the origin of the virus through molecular epidemiological studies in connection with knowledge of animal movements:

– The conventional RT-PCR[3], now widely used in laboratories, allows direct sequencing and thus genotyping of strains. Four lineages are known, historically separated according to geographical localisation, but now showing some lineage mix.

– There is a constant increase in sequence data mainly from part of the F and of the N genes of PPRV and also from the full genome.

– Real-time RT-PCR linked to 'robotisation' allows high throughput surveillance. Several publications on this method adapted for PPR are available.

6.3. Sampling and isolation of strains

– Simple and cold-chain-free methods, for sampling and virus identification such as dry blotted filter paper (Whatman), are very promising.

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2 ELISAs: enzyme-linked immunosorbent assays
3 RT-PCR: reverse-transcription polymerase chain reaction

– New methods of isolation can reinforce PPR control efforts as they enable quicker diagnosis and virus typing for epidemiological information. A technical breakthrough was recently made using transgenic cells expressing the receptor (SLAM) of morbilliviruses (including PPRV); this method reduced considerably the lag time for these viruses.

All these tests would be allow better assessments to be made of the extension of the disease into new areas or the certification of freedom from the disease.

6.4. Standardisation of genotyping

Improved standardisation would be needed to ease the comparison of all the data produced. For example, protocols should be well defined for the genotyping of strains, currently made using two genes of the virus, the nucleoprotein (N) and the fusion protein (F). The criteria for categorising to which lineages the virus isolates belong should also be harmonised. Today the two main laboratories (CIRAD and IAH Pirbright) use different criteria.

6.5. Diagnostic tools - transfer of technology

– As the laboratory confirmation of clinical cases is compulsory it is essential that diagnosis rely on validated, sensitive and specific tools that are currently available worldwide.

– The transfer of technology to more laboratories with the aim of improving skills should be supported, including increasing the testing capacity and implementing proficiency tests.

6.6. Vaccine developments for improved control of PPRV

– The conventional live attenuated PPR vaccines, including PPRV Nigeria 75-1 and PPRV-Sungri 96, have been used worldwide with high efficacy in sheep and goat populations, providing at least 3 years immune protection after a single dose immunisation. The Nigeria 75/1 vaccine strain had proven effective, regardless of the lineage type circulating in a particular country/region.

– To carry a control programme to a successful conclusion in the long term (PPR eradication), it will be highly beneficial to develop and use vaccines along with new-generation companion diagnostic tests that would enable differentiation of infected from vaccinated animals (DIVA). Some preliminary steps have already been taken including whole genome cloning and definition of markers, but few laboratories work on PPR reverse genetics. This research should be encouraged.

– Combined vaccines to target several major diseases of small ruminant species should be developed such as Capripox-PPR vaccine, which also serves as a marker vaccine.

– Improvement of the stability and of the production of the conventional PPR vaccines is needed. The process of thermostability was initiated in PANVAC for the rinderpest and PPR vaccines (production of the Xerovac). Another initiative for PPRV thermostabilisation is currently being implemented between NVI (Ethiopia) and IBET (Portugal). The process is an output of the European MARKVAC project. Transfer is foreseen to other laboratories.

– Improvement of the criteria for evaluating vaccine potency with a virulent challenge is indispensable. A scoring system adapted to infectious doses rather than lethal doses of challenge virus should be defined (see Section 8 of this report). The potency test will also benefit from the development of a small animal model (transgenic mice expressing the receptor of PPRV).

6.7. Therapy developments

– Biological antivirals based on RNA interference have been developed for potential treatment during PPRV infection. The *in vitro* tests of these new reagents have been successful and the *in vivo* tests are on-going. This research should continue.

– To improve *in-vivo* studies on PPRV infection and on vaccine efficacy or antiviral activity, murine models are planned to be developed, especially by creating transgenic mice bearing the PPRV SLAM receptor. This study has to be encouraged.

6.8. Conclusion

In order to improve the control of PPR there is a need to develop research with international support as a component of a project on global strategy to control PPR.

7. Selection of vaccines used against PPR in regard to the global eradication of rinderpest

The Group considered that the vaccine strains that had been widely used for mass immunisation in Africa, India and in several other countries in Asia and the Middle East were effective. They would not pose any problem with regard to possible differentiation with rinderpest virus infection.

Considering the global eradication of rinderpest in its natural setting and the risk of accidental release of the virus from laboratory sources, FAO and OIE will, among other post-eradication activities, ensure approval for a small number of centres able to produce rinderpest vaccine (see Resolution No. 18 of the OIE 79th General Session and its appendix). The vaccines used in case of a rinderpest emergency would be the currently available rinderpest vaccine and the Group did not discuss the issue of selection of PPR vaccines in regard to the global eradication of rinderpest.

8. Review and update of the *Terrestrial Manual*

The Group discussed and proposed a revision to Chapter 2.7.11 on PPR of the *Terrestrial Manual*.

Section A (Introduction) was updated with regard to susceptible animals, worldwide situation, mortality and morbidity.

In Section B (Diagnostic techniques), heading 1 (Identification of the agent), the Group revised slightly the text to take into account recent technical developments (ELISA, RT-PCR, virus isolation). Regarding Section C (Requirements for vaccines and diagnostic biologicals), heading 4 (batch control), the Group discussed the problem of the definition of the LD_{50} (50% lethal dose) to be used for vaccine potency tests. This challenge dose being difficult to reproduce, it was recommended that researchers work on an ID_{50} (50% infectious dose), which could include the definition of a clinical scoring system (1996 and 2000 editions of the *Terrestrial Manual* mentioned the use of 50% goat infectious doses for vaccine potency tests). For the time being, the Group agreed not to revise this section of the *Terrestrial Manual*.

The amended chapter was passed on to the Biological Standards Commission.

9. Need for and feasibility of launching a global PPR control strategy and/or a global initiative with appropriate partners to eradicate the disease

The presentation and discussion on the current PPR situation in the world (see Section 4 of this report) led the Group to conclude that there was a need to increase efforts to control the disease.

The Group received information on several initiatives currently being prepared or implemented in various regions. In Africa, the AU-IBAR[4] had prepared and published a Pan-African strategy for the progressive control of PPR[5], which was presented on different occasions such as during the latest Regional GF-TADs[6] Steering Committee for Africa, held in Nairobi, Kenya in 2011.

The Group took note of the situation[7] and the on-going discussions among SADC[8] member countries. A recent meeting had been held in Shingula, Zambia, from 7 to 8 June 2011 and a set of recommendations were produced[9]. PPRV infection was spreading from Eastern Africa towards Southern Africa, and several SADC member countries were already infected (Tanzania, Congo, and possibly northern Zambia). Further discussions would take place during a forthcoming meeting of SADC epidemiology and laboratory networks and also during a meeting of SADC Directors of Veterinary Services. A regional control strategy could be proposed that might include vaccination and the establishment of a protection zone between Tanzania and Congo in one side and Zambia, Mozambique, Malawi and Angola on the other.

The situation in Northern Africa and particularly in the Maghreb region was summarised by Dr Malik Jamal. The spread of the PPRV lineage 4 with several countries being infected had stimulated debates regarding a possible regional strategy to eradicate the disease[10]. A regional FAO TCP[11] was being implemented and other regional meetings would take place with the collaboration and support of the OIE and FAO Sub-Regional Offices. Dr Hosamani reported on the disease situation in India[12] and on the control programme currently implemented, based on massive vaccination during the past 3 years followed by more targeted vaccination campaigns. The use of efficacious vaccines and improved diagnostic tests was expected to significantly contribute to India's control strategies. However, to achieve the desired objectives of the control programme, the Veterinary Services needed to be strengthened to improve its capacity for rapid reaction and to instigate proper surveillance systems in the country.

Dr Giancarlo Ferrari described on-going discussions on PPR in FAO. A presentation calling for proactive PPR control action had been given by Dr Peter Roeder during the GREP[13] workshop held in Rome on 14 October 2010. FAO had made a suggestion to the OIE to develop a PPR global strategy in the context of the FAO/OIE GF-TADs as was currently being done for the global control of FMD.

The conclusions of the Group's discussions were the following:

- Considering the PPR situation in the world and the discussions on the initiatives already underway in various regions, the Group recommended that a global PPR control strategy be considered.

- Considering the availability of effective tools to control PPR, such as vaccines and diagnostic tools, along with the epidemiological characteristics of the disease, with the marginal role played by wildlife, the Group considered that PPR control and eradication programmes were feasible at the regional and eventually the global levels.

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4 AU-IBAR: African Union-Inter African Bureau for Animal Resources

5 A. Elsawalhy *et al*., (2010), Panafrican strategy for the progressive control of PPR (Panafrican PPR Strategy). *Bull. Anim. Hlth. Prod. Afr.*, 185-193

6 GF-TADs: Global Framework on the control of Transboundary Animal Diseases

7 P. Bastiensen *et al*. (2011), Perspectives de l'OIE sur la Peste des Petits Ruminants**,** PPT présentation. Atelier de développement de stratégies pour freiner l'avancée de la *Peste des Petits Ruminants* dans la région SADC, 7 – 8 juin 2011, Chingola, Zambie

8 SADC: South African Development Community

9 SADC Shingola PPR meeting, Zambia, 7-8 June 2011, Resolutions on PPR

10 Regional Workshop on the control of PPR in Maghreb (2008), Recommendations, Rabat, Morocco, 13-14 Nov. 2008

11 FAO TCP: Food and Agriculture Organization of the United Nations Technical Cooperation Programme

12 M. Hosamani, PPR control strategies in India, PPT presentation, Paris, 16 June 2011

13 GREP: Global Rinderpest Eradication Programme

- Considering the success of the GREP of FAO and the on-going work carried out jointly by FAO and OIE to develop a global FMD control strategy, the Group recommended that a global initiative to control PPR be further discussed using the GF-TADs mechanism and building on the necessity to develop and improve national as well as regional and international coordination. The GREP model should be used along with methods that were or are being applied to avian influenza or FMD control and eradication. The GF-TADs Global Steering Committee had already addressed this PPR control issue and had recommended to consider the establishment of a specific PPR GF-TADs Working Group (meetings held in Rome in June 2009 and in Paris in October 2010). If a global initiative was to be considered, an appropriate partnership would become crucial and would have to be put in place with, in addition to OIE and FAO, other partners such as IAEA[14], regional organisations, donors, private stakeholders (companies, producers organisations, etc.), research organisations, and international and regional organisations' member countries.

The Group further recommended that OIE considers the possibility of developing the necessary tools that would become indispensable and would provide incentives to support the implementation of a global strategy. Among such tools would be the development of:

- A specific OIE PPR Eradication Pathway, as had been done for global rinderpest eradication.

- A specific procedure to assess and certify the official PPR free status of countries or zones, which would require the establishment of an OIE *ad hoc* Group on PPR status and the necessary provisions in the *Terrestrial Code*, including guidance on preparing country dossiers.

- Additional articles in the specific PPR Chapter 14.8 of the *Terrestrial Code* to support an eradication strategy using an eradication pathway, particularly in the field of surveillance.

If the Scientific Commission at its September 2011 meeting recommended continuing to work on a PPR control strategy and initiative, and on an OIE official pathway, the PPR *ad hoc* Group would be ready to meet again towards the end of 2011 or the beginning of 2012. Should this be the case, participation of experts from the OIE *ad hoc* Group on Epidemiology and, eventually, from the OIE Working Group on Wildlife Diseases, would be desirable.

10. Finalisation and adoption of the draft report

It was not possible to adopt a finalised draft report during the meeting because of the time spent on several items of the agenda, particularly on the revision of the Chapter of the *Terrestrial Code*. The Group agreed to circulate a full report by email for final adoption. The Chairman thanked the Rapporteur and all participants in the *ad hoc* Group for their active participation and productive discussions.

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…/Appendices

[14] IAEA: International Atomic Energy Agency

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON PESTE DES PETITS RUMINANTS

Paris, 14 - 16 June 2011

Agenda

1. Opening and Welcome Address
2. Adoption of the agenda and appointment of a chair and of a rapporteur
3. Adoption of the Terms of reference
4. Current situation of PPR in the world
5. Review and update of the *Terrestrial Code*
6. Review of the recent research developments and research initiatives on PPR
7. Selection of vaccines used against PPR with regard to the global eradication of rinderpest
8. Review and update of the *Terrestrial Manual*
9. Need for and feasibility of launching a global PPR control strategy and/or a global initiative with appropriate partners to eradicate the disease
10. Finalisation and adoption of the draft report

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON PESTE DES PETITS RUMINANTS

Paris, 14 - 16 June 2011

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Appendix III

MEETING OF THE OIE *AD HOC* GROUP ON PESTE DES PETITS RUMINANTS

Paris, 14 - 16 June 2011

Terms of Reference

1. Update on the current situation of peste des petits ruminants (PPR) in the world
2. Review the recent research developments and research initiatives of PPR
3. Review and update the *Terrestrial Code* and the *Terrestrial Manual* Chapter on PPR
4. Advise the OIE on the selection of vaccines used against PPR with regard to the global eradication of rinderpest
5. Advise the OIE on the need for PPR specific surveillance guidelines
6. Advise the OIE on the need for and feasibility of launching a global PPR control strategy and/or a global initiative with appropriate partners to eradicate the disease

Appendix VII

Original: English
June 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON ANTIMICROBIAL RESISTANCE

Paris, 20–22 June 2011

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1. Opening and purpose of the meeting

The OIE *ad hoc* Group on Antimicrobial Resistance met for the second time from 20 to 22 June 2011 at the OIE Headquarters in Paris, France. Dr Elisabeth Erlacher-Vindel, Deputy Head of the Scientific and Technical Department, welcomed the participants on behalf of the OIE Director General, Dr Bernard Vallat and provided information on ongoing and future activities of the OIE in the field of antimicrobial resistance.

The Group was informed that Dr Vallat had participated in the High Level Panel, organised during the World Health Day, 7 April 2011, at the World Health Organization (WHO) Headquarters, and that on that occasion, he strongly supported the call made by Dr Margaret Chan, Director-General of WHO, to combat antimicrobial resistance worldwide (see Appendix IV).

The general objective of the Group's meeting was to revise the relevant OIE *Terrestrial Animal Health Code* (*Terrestrial Code*) chapters relating to the use of antimicrobials and the containment of antimicrobial resistance in veterinary medicine (Section 6 of all five chapters) using, as far as possible, user-friendly text and taking into account the draft guidelines and the definitions developed by the FAO/WHO Codex *Ad Hoc* Intergovernmental Task Force on Antimicrobial Resistance.

The specific objective of this second meeting was to continue on the revision of the *Terrestrial Code* started at the first meeting in addressing Chapter 6.9 - Responsible and prudent use of antimicrobial agents in veterinary medicine, and also to address and reply to the technical comments received from OIE Member Countries on the proposed updated versions of chapters 6.7 and 6.8 of the *Terrestrial Code* drafted at the first meeting of the Group.

2. Designation of chairperson and rapporteur

The meeting was chaired by Dr Herbert Schneider and Mr Christopher Teale acted as rapporteur.

3. Adoption of the Agenda

The adopted Agenda, List of Participants, and Terms of Reference are presented in Appendices I, II and III of this report, respectively.

4. Review and reply to the technical comments received from OIE Member Countries on the proposed updated versions of chapters 6.7. and 6.8. of the OIE *Terrestrial Animal Health Code*

Comments received from OIE Member Countries were reviewed and were taken into consideration in finalising chapters 6.7 and 6.8 of the *Terrestrial Code*.

5. Review and update Chapter 6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine of the OIE *Terrestrial Animal Health Code*

The Group recalled that Chapter 6.9. of the OIE *Terrestrial Code* had been adopted in 2003 and revised in 2005 following the adoption of the Codex Code of Practice to Minimise and Contain Antimicrobial Resistance (CAC/RCP 61-2005). Further revision was deemed necessary to take into account recent international recommendations and guidelines in this field, including the publication of the OIE list of antimicrobials of veterinary importance and the WHO list of critically important antimicrobials, VICH guidelines and relevant work carried out by the Codex Alimentarius Commission.

As part of the review of Chapter 6.9., the following terms were proposed by the Group:

Dosage regimen

The Group clarified the meaning of the term *dosage regimen* to include dose, dosing interval and duration of treatment. Route of administration was not included.

Veterinary medicinal products

"Veterinary antimicrobial products", "veterinary medicinal products (VMP)", "medicines" and "veterinary antimicrobial agents" had all been used previously in the relevant chapters. VMP has been defined elsewhere (reference VICH in Guideline VICH GL 24) and was therefore the preferred term. It has now been used throughout the chapters as appropriate.

It was considered necessary for reasons of consistency and the inclusion of all stakeholders to add a paragraph to chapter 6.9. covering the training of food-animal producers.

Following discussion of a Member Country comment, the Group felt that in general, Chapter 6.9. could be applicable to all animal species. Some paragraphs relating specifically to food-producing animals only were highlighted as such.

6. Review and update Chapter 6.10. Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals of the *Terrestrial Animal Health Code*

There was insufficient time to review Chapter 6.10 taking into account the draft guidelines and the definitions developed by the Codex *Ad Hoc* Intergovernmental Task Force on Antimicrobial Resistance.

7. Other matters and discussion points

7.1. Definitions

The Group identified a need for certain terms used in Chapters 6.7. to 6.9. of the *Terrestrial Code* to be defined, such as:

- Therapeutic and non-therapeutic use
  Therapeutic and non-therapeutic use definitions would need to consider administration for the purposes of prevention, control and treatment of animal disease.

- Regulatory Authority
  The Group recognised that the term "Regulatory Authority" seemed to be included under the term Competent Authority; the Group felt that in relation to veterinary medicinal products, the term Regulatory Authority should be clearly defined.

- Good Manufacturing Practices (GMP)
  GMP might be defined differently in different countries; there was a need to ensure consistency in interpretation.

- Treatment regimen and schedule
  An appropriate term or terms to cover the overall process of antimicrobial administration needed to be considered.

7.2. The Group proposed that the following topics should be considered for discussion at future meetings:

- Review of Chapter 6.10 Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals of the *Terrestrial Code*.
- Review of comments received from Member Countries relating to Chapter 6.9.
- Refinement and updating of the OIE list of antimicrobials of veterinary importance.
- Development and finalisation of definitions for the terms specified above.

7.3. The Group noted that a global OIE Conference was proposed for 2013 covering antimicrobial usage.

7.4. The Group highlighted the need for the OIE to continue to develop specific guidance for veterinary medicinal product legislation as an essential factor for the effectiveness of any measures to combat antimicrobial resistance.

7.5. Proposed dates of the next meeting: 13–15 December 2011 at the OIE Headquarters, Paris, France.

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…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON ANTIMICROBIAL RESISTANCE

Paris, 20–22 June 2011

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Agenda

1. Opening and purpose of the meeting
2. Designation of chairperson and rapporteur
3. Adoption of the agenda
4. Review and reply to the technical comments received from OIE Member Countries on the proposed updated versions of chapters 6.7 and 6.8 of the OIE *Terrestrial Animal Health Code*
5. Review and update Chapter 6.9 Responsible and prudent use of antimicrobial agents in veterinary medicine of the OIE *Terrestrial Animal Health Code*
6. Review and update Chapter 6.10 Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals of the *Terrestrial Animal Health Code*
7. Other matters and discussion points

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Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON ANTIMICROBIAL RESISTANCE

Paris, 20–22 June 2011

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Appendix III

MEETING OF THE OIE *AD HOC* GROUP ON ANTIMICROBIAL RESISTANCE
Paris, 20–22 June 2011

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Terms of Reference

Review and update the chapters of the *Terrestrial Animal Health Code* related to antimicrobials and antimicrobial resistance in the following order:

- Chapter 6.8.: Monitoring of the quantities of antimicrobials used in animal husbandry;
- Chapter 6.7.: Harmonisation of national antimicrobial resistance surveillance and monitoring programmes;
- Chapter 6.9.: Responsible and prudent use of antimicrobial agents in veterinary medicine;
- Chapter 6.10.: Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals

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Appendix IV

Speech of Dr Bernard Vallat
Director General of the World Organisation for Animal Health (OIE)

World Health Day, 7 April 2011, Geneva

The World Organisation for Animal Health (OIE) strongly supports the call made by Dr Margaret Chan, Director General of the World Health Organization (WHO) for combating antimicrobial resistance worldwide.

According to the clear mandate given by our Member Countries, the OIE considers the prevention of antimicrobial resistance and the prudent use of antibiotics as one of its key responsibilities and activities.

We already prepared and adopted many international standards for the prudent use and monitoring of antimicrobials in animals and at the same time, we are committed to influence permanently governments to integrate those standards in their national legislation. The support of WHO and the international community for the achievement of that objective is crucial.

We consider appropriate legislation as the first step of good governance of animal health policies, to be followed by appropriate human and financial resources allowing its correct and extensive implementation everywhere.

These objectives are a global public good in our globalised world in which pathogens, including those resistant to antimicrobials are spreading permanently all around the world. The huge increase of tourism and world trade multiplies the spread of pathogens worldwide. That makes it that the failure of only one country in its capacity to prevent those problems endangers all the others.

The use of antibiotics in animals is broad in the entire world. This is why we must permanently conduct risk assessment and prioritize the use of antibiotics which ensure the health and the welfare of animals as well as the sufficient production of safe animal products such as milk, eggs and meat for humanity. We must ensure food security and food safety while greatly minimising practices at risk such as the use of antimicrobials for animal growth promotion.

There are no universal optimal systems for the delivery of antimicrobials at the farm. In the majority of the regions and the countries of the world where animals are held, the best way for the delivery and treatment of animals is directly through a veterinarian as a specialist having received a long training for that purpose, and not through other stakeholders.

We fully agree that this profession, as well as medical doctors and pharmacists must be controlled by law in order to ensure ethic and minimise the weight of sole profit linked with the prescription and the sale of antibiotics. This is one of the key components of the good governance concept promoted by the OIE and the basis of the capacity building programmes provided to all our national Delegates and specialised national focal points on veterinary drug legislation, including registration, distribution and use.

It is important to keep in mind that currently research on new antimicrobials is mainly driven by potential profits. Therefore the concept of profit cannot be left aside and consequently public-private partnership in that field is crucial in order to integrate the public good concepts.

It is a long way and I hope that we will join forces to convince the international community that the priorities are the following:

- more cooperation between international organisations,

- more support to developing countries particularly in good governance aspects,

- more risk assessment and banning of non-priority practices in animals,

- more research and public-private partnerships.

The OIE decided to organise a global conference next year on the prudent use and monitoring of antimicrobials in animals. I surely hope that representatives from the WHO and the FAO will accept to participate in the scientific Committee of that important conference.

Thank you for your attention.

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Appendix VIII

Original: English
June 2011

REPORT OF THE MEETING OF THE OIE AD HOC GROUP ON THE EVALUATION OF FOOT AND MOUTH DISEASE STATUS OF MEMBERS

Paris, 27 - 29 June 2011

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1. Opening

The meeting of the OIE *ad hoc* Group on the Evaluation of Foot and Mouth Disease (FMD) status of Members (hereafter the Group) was held at the OIE Headquarters, Paris, from 27 - 29 June 2011. Dr Lea Knopf of the Scientific and Technical Department, welcomed the Group and outlined the importance and purpose of the meeting. Dr Kris de Clercq, Vice-President of the Scientific Commission for Animal Diseases (Scientific Commission) was present to provide guidance to the Group. Dr Jose Naranjo had sent apologies, as he could not attend the meeting due to other commitments. Dr Kris de Clercq also welcomed and thanked the Group on behalf of the Scientific Commission for its excellent work conducted so far. The Group was invited during their meeting to debate various issues to provide detailed advice to the Scientific Commission. Aspects of the wildlife-livestock interface with regard to FMD needed to be discussed with priority, taking into account the recent outbreaks that occurred in Bulgaria, as well as the OIE FMD expert mission to Turkey's Thrace region in May 2011 which had been conducted under the auspices of the Scientific Commission. Dr. Lea Knopf announced that she was leaving the OIE in September 2011 and the *ad hoc* Group thanked her for her invaluable inputs and guidance over the last 5 years.

2. Adoption of the agenda and appointment of a rapporteur

The Group was chaired by Dr Alf-Eckbert Füssel and Dr Wilna Vosloo acted as rapporteur. The Group endorsed the proposed agenda, with some changes on the order of agenda points to be addressed.

The Agenda and list of participants are presented as Appendices I and II, respectively.

3. Feedback from the OIE expert mission to the Thrace region of Turkey, May 2011

Dr Kris de Clercq debriefed the Group on the OIE mission to the Thrace region of Turkey carried out from 18 to 21 May 2011. The mission had aimed at assessing the steps taken, as recommended by the OIE to Turkey, to maintain the FMD free status with vaccination in the Thrace region. The mission was conducted after the occurrence of FMD outbreaks in Bulgaria located next to its border with Turkey and involving both domestic species and wildlife. It was fortuitous that the mission could also collect information to investigate whether the disease had originated in Turkey or in Bulgaria. Dr Kris de Clercq informed the Group on the findings of the mission. During the 79th OIE General Session, additional to a meeting with the Delegate of Turkey, a separate meeting had been held between the Delegate of Bulgaria and some members of the Scientific Commission to exchange information with Bulgaria on the evolution of their FMD control.

Subsequent to this mission, a letter listing several recommendations was sent from the OIE to Turkey. No action was needed from the *ad hoc* Group at present as the deadline for Turkey to provide the requested feedback was set for the forthcoming meeting of the Scientific Commission, end of August 2011.

During the meeting of the *ad hoc* Group, Dr Kris de Clercq expressed concern that the Scientific Commission had no insight to raw laboratory testing data of samples from Bulgaria as of today and this should be followed up. In addition, Dr Alf Füssel reported that more wildlife samples (deer, roe deer and wild boar) were found serologically positive in Bulgaria recently.

Dr David Paton presented data on the forensic tracing using full genome sequencing of several Bulgarian and Turkish FMD virus isolates related from this outbreak near the Bulgarian-Turkish border. There were significant genetic differences from the closest Turkish isolate that the OIE Reference Laboratory in Pirbright had in comparison to the current outbreak virus isolates of Bulgaria. The results indicated evidence of undetected and unreported cases in the Bulgarian-Turkish border area and that the Bulgarian wild boar FMD virus isolate was the closest to the common known FMD virus ancestor of former Bulgarian cases. However, the true ancestor is still not known.

4. Issues on FMD wildlife-livestock interface

The Group held in depth discussions on issues related to FMD and the wildlife-livestock interface in light of the current provisions provided in Chapters 8.5. (FMD) and 1.6. (Questionnaire on FMD) of the *Terrestrial Code* 2011.

African buffalo (*Syncerus caffer*) were epidemiologically important wildlife species which were known to maintain the SAT serotypes of FMD virus in the Southern Africa region. However, their potential to maintain and spread serotypes O, A and Asia-1 was not entirely known. Experience in Southern Africa showed that FMD control could be successful if infected buffalo and livestock were separated by mechanical barriers, i.e. fencing and other movement control options. Most of the countries of this region also had a (protection) zone where domestic animals were vaccinated to act as a barrier between wildlife and naive domestic animals.

The role of other wildlife species seemed to be less significant and was probably dependent on epidemiological (ability to sustain infection and transmit the disease), ecological (animal density) and environmental factors. Other than African buffalo, there was no clear evidence that any other wild, FMD susceptible animal species could act as a maintenance host. Wildlife species might be transiently infected and spread disease during their viraemic period. Therefore, they did not usually initiate outbreaks. However, wild boar and feral pigs had the potential to initiate outbreaks through susceptibility to FMD infection via contact with contaminated waste products. In many countries these animals were also present in large numbers, were adaptable to many different habitats and were able to excrete large amounts of virus. Nevertheless, more evidence was needed to quantify this risk. The Group was also informed about a paper[1] on the susceptibility of capybara (study made by Panaftosa) suggested by Argentina.

The Group noted that the new definition of '*wildlife*' adopted at the 79th OIE General Session also included feral animals. Since wildlife, other than African buffalo, did not regularly sustain FMDV transmission on their own, i.e. without spilling over into domestic animals at some point, it was very important to monitor the domestic animals as an indication of disease in wild and feral animals. But the risk posed by wild and feral animals had to be considered and surveillance designed accordingly. Control at the interface was important and increased surveillance was a means of doing so.

The *Terrestrial Code* defined an outbreak as 'the occurrence of one or more cases in an epidemiological unit'. Clarification was sought concerning the definition of 'epidemiological unit' and how this definition related to the wildlife context. Often, the epidemiological unit could not easily be defined for wildlife categories and the multitude of species or habitats involved. Therefore, these incidents might be better referred to as cases and not outbreaks. For fenced animals, the unit could be the fenced population. However, it was difficult to define a unit for free-ranging wildlife.

[1] Rosenberg, Félix J.; Gomes, Ivo – Susceptibilidad del Carpincho o Capibara (Hydrochoerus hydrochoeris hydrochoeris) al virus de la Fiebre Aftosa – *Bltn Centro Panamericano Fiebre Aftosa*, 27-28: 35-41, 1977

The Group considered that a previously free country/zone would lose its FMD free status upon finding an FMD positive case in wildlife, unless the epidemiological circumstances were known and the risk posed was immediately mitigated.

For example, it could be helpful to compare two scenarios, one involving the discovery of serologically positive buffaloes escaping transiently from an infected zone into a free zone, versus the finding of seropositive wildlife individuals (such as wild boars) in an uninfected zone. In the former case, the source of infection would be known and the incident could be treated as an FMD suspicion until there was confirmation that no transmission to other susceptible (domestic) animals had occurred and the buffaloes involved were all destroyed or removed. In the latter case, the source of an unexpected finding of a seropositive wild boar could require extensive investigations that might reveal undisclosed infection in other individuals and species.

In the event of an unexplained FMD case affecting wildlife, a containment zone as defined by the *Terrestrial Code* could be established to try to minimise the impact of control measures. However, there were several difficulties in complying with the currently written guidance within the *Terrestrial Code*, such as how to determine the borders of such a containment zone and how to carry-out stamping-out/modified-stamping out of an epidemiological unit that contained wildlife. In addition, animals in a containment zone needed to be identifiable as belonging to the containment zone, which would be difficult to implement for wildlife.

Theoretically, three different scenarios for infection of wild animals within a containment zone could be envisaged: a) only wildlife infected, b) wildlife infected with spill-over into domestic animals and c) domestic animals infected with spill-over into wildlife. A containment zone should therefore be able to cover all these scenarios. The Chapter on FMD would be improved by providing more detailed guidance and recommendations on situations where wildlife was infected. Countries should consider all epidemiological factors when implementing control measures and might need to adjust the concept of the containment zone (within the defined range possible) to address their particular situation and all details should be provided to the OIE.

The Group focused on aspects of wildlife infection in Articles 8.5.8 (Establishment of a containment zone within an FMD free country or zone) and 8.5.44 (Surveillance strategies) and changes were made to ensure reasonable guidance on wildlife infection. The questionnaires were also adjusted to ensure that countries would provide evidence that wild and domestic animals did not have access to potentially contaminated waste (6b). In accordance with the new definition for wildlife, changes were made to distinguish where necessary whether the questionnaires referred to domestic and/or wild captive, wild and feral animals, respectively. Game handling facilities were added as places where surveillance could be performed and post mortem inspections could be carried out.

The Group would appreciate to have access to the risk assessment which the European Food Safety Authority (EFSA) was preparing on the risk of wild boar regarding FMD infection as soon as it became available. This might provide help in contributing to decide on whether wild boar should be mentioned specifically in the *Terrestrial Code*.

The Articles on epidemiological surveillance of the chapter on FMD did not mention wildlife specifically and the Group suggested some additions. However, in the Chapter 1.4. on animal health surveillance, wildlife was already taken into consideration and the Surveillance article of the FMD chapter had to be read in conjunction with the horizontal chapter 1.4..

5. Evaluation of a request from Members for the recognition of an FMD free zone where vaccination is not practised

Argentina

The OIE had received an application from Argentina for the recognition of an FMD free zone where vaccination is not practised, mainly summer pastures located in the province of San Juan. The Group discussed the dossier and summarised the findings. Observations from Dr Naranjo, received by email, were made available to the *ad hoc* Group participants present.

The risk to Argentina's proposed zone was that if Chile suffered from an FMD outbreak, this could have an impact on the wider Argentinean zonal status, because Chilean animals were on Argentinean soil. The summer pastures would only remain a separate zone as long as procedures were in place to control animal movement to and from the zone. Otherwise any outbreak within the zone would have potential to impact on the status of Argentina.

The Group also requested more information regarding the responsible country in the event of an FMD suspicion or outbreak located in the proposed zone. The limited accessibility (e.g. roads) from the Argentinean side raised the question as to which country would in practical and legal terms have the responsibility for notification, reporting and investigating the suspicion or outbreak and which laboratory would be responsible for the diagnosis.

The Group decided to send a number of questions to the Delegate of Argentina. The following additional information and clarifications were requested:

- Is there a legal document or an official agreement between the Veterinary Services of Argentina and Chile on the sanitary responsibilities over this Veranadas zone?

- Who is responsible for and who is practically carrying out the FMD surveillance in the animals coming or residing in the proposed zone?

- If there was an FMD suspect animal (or even an outbreak) in the proposed zone, which Veterinary Service would notify the suspicion/outbreak, respond and take the necessary action? Considering that Argentina's Veterinary Services have only difficult access to the zone, especially if staff from the e.g. Central Veterinary Services would need to carry out special investigations. To which country's laboratory would samples for analysis be sent to?

- Provide more evidence on rules for Chilean animals being moved to the Argentinean proposed zone and whether those fall under the rules of international livestock imports (To the zone in Argentina and also back to Chile, see Article 8.5.12. of the *Terrestrial Code*). The degree of separation implemented between the proposed zone and Chile's territory seemed not to be clear.

- The dossier states that access to the proposed zone by animals from Argentina is difficult due to mountain ranges, but there should also be a legal basis to prohibit or restrict movement of Argentinean FMD susceptible livestock to the proposed zone – does this exist?

The Group also requested the assurance that there were regulations preventing the movement of vaccinated animals from Argentina to the summer pasture which could potentially impact on Chile's status as free without vaccination should vaccinated animals accidentally be introduced into Chile.

6. Refinement of Chapter 8.5. with the objective of improving internal consistency and aligning it with the Questionnaire

The Group agreed in its discussions that it was crucial to define 'virus circulation'. Currently the term was used for countries or zones that were free of FMD practising vaccination. Looking at Member comments repeatedly received over the years, the concept seemed to lack sufficient clarity. 'Infection with FMDV' was defined at the beginning of the Chapter and the Group suggested a definition for 'FMDV circulation'. The Group reviewed part of the FMD chapter and tried to improve clarity and consistency.

An inconsistency in Article 8.5.5. point 3a) was addressed to bring it in line with the other similar Articles. In Article 8.5.8 the point 1d) was deleted as being superfluous since it stood to reason that if a containment zone had been established, the outbreak had already been confirmed. Point 4 in the same Article was changed to include virus circulation. In Article 8.5.9 point 2 the inconsistency was addressed to bring it in line with the other points (FMDV infection changed to circulation). The Group decided to keep the term 'infection' in

Articles 8.5.3 and 8.5.5. If a country/zone that was free from FMD with vaccination and wished to apply for freedom without vaccination, evidence that there had not been 'infection' for the last 12 months had to be provided. The reason was that Members had 12 months to prove that they fulfil the requirements for a country/zone free without vaccination where the requirement was that no 'infection' should occur.

The Group considered that in Article 8.5.1. (Introduction), the definition of the family Camelidae as ruminants should be revised. However, a change to the definition would have an impact on the rest of the Chapter where only the term 'ruminants' was used. This should be addressed when the Chapter was revised more thoroughly. In addition, the term 'pig' did not cover wild boar or other wild porcines.

Bactrian camels were of proven concern for FMD epidemiology. Experience suggested that new world Camelids were of little importance in their native countries, but their potential role when imported to and bred in other regions with different FMDV isolates or different husbandry systems was not known. More information was needed before the Group would make an informed decision on whether new world camelids should be excluded from FMD susceptible species.

The Group discussed selected Member comments received on Chapter 8.5. Most of the comments indicated that Chapter 8.5 needed revision and that the Article 8.5.1. needed to be re-structured and revised to ensure all concepts and terminology used in the chapter were clear. The introduction section of the chapter on FMD of the Terrestrial Manual should be read in conjunction with the *Terrestrial Code*, but the emphasis was of course on diagnostic assays, vaccines and aspects of the disease that relate to these. For the *Terrestrial Code* a more risk-based introduction was needed. The Group suggested that a glossary of terms which were specific to the FMD Chapter could be included.

The Group considered that the aspects of 'carriers' in vaccinated populations versus 'circulation' of virus were not clear. The terms that seemed to provide most of the confusion were "infection", "circulation", "transmission" and "carrier". Questions calling for special attention were how to prove a carrier status and how to interpret NSP test positive results within a vaccinated herd. There were different impacts for a) countries free with vaccination and b) countries free without vaccination after an outbreak where (emergency) vaccination was used. In Situation a), when a country found a cluster of NSP positives, it would wait a defined period of time, re-test and if there was no increase of numbers of positives, claim that there was no virus circulation and therefore no impact on its disease free status. However, if NSP positives were found in a country free without vaccination after an outbreak where emergency vaccination was implemented, the same finding could indicate presence of infection. Not only would the animals had to be removed, but it could potentially impact on the length of the waiting period post-outbreak. These aspects were not clear and needed further discussion. At its next meeting, the *ad hoc* Group on FMD would need additional time to discuss these issues to provide useful suggestions for FMD Chapter. Article 8.5.49 addressed some of the difficulties in interpreting test results, but the implications on disease status were not clear. The timing and impact on resultant freedom would need clarification. The Group felt that it should also consider the possibilities of proving the absence of 'transmission'.

The Group discovered problems with the interpretation of Article 8.5.9 point 1c). Should the article use the term 'serological surveillance' or simply 'surveillance', since it referred to Article 8.5.49 that clearly indicated that a follow up should include virological assays? Should Article 8.5.9 point 1c) state absence of 'infection'? There was inconsistency between points 1c) and 1b). The references to the Articles dealing with surveillance needed to be corrected as 8.5.45. specifically referred to countries/zones without vaccination and 8.5.46 referred specifically to countries/zones where vaccination is practised.

The Group concluded that another round of discussion was necessary to start the process of revising the chapter to make it an entire, consistent package. However, the Group members agreed that they should engage in E-mail discussions in preparation of the next meeting.

The Group considered selected Member comments on the FMD chapter that had also an impact on the structure of the chapter and added its opinion:

- The Group agreed with the comment from the European Union (EU) about not accepting the merging of Articles 8.5.22, 23 and 24.

- The Group also accepted the EU proposal for the changes to Article 8.5.27 regarding a separate Article for importation of milk for animal feeding.

- Article 8.5.31 point 3) stated that the recommendation for straw and forage was 'under study'. Historical evidence from experiments performed at the OIE Reference Laboratory in Pirbright indicated that virus could survive on hay and straw for long periods of time. Dr David Paton would provide additional information from former studies to the Group. Keeping straw in bond for 3 months should reduce the risk, but the Group wished to look at the evidence before commenting. The Group could also review previous outbreaks and the time a farm was left empty before restocking. Historically speaking, no outbreaks occurred on these re-stocked farms, but clarity was needed on the exclusion periods implemented.

The Group requested that OIE Headquarters provide an editorial guidance document with clear recommendation for *Terrestrial Code* Chapter revisions and writing. The Group felt that it was necessary to have such guidance before embarking on revising the Chapter from scratch. The International Trade Department of the OIE would be contacted by Dr Lea Knopf to expedite this matter.

7. List of topics that needed to be addressed by Members for annual reconfirmation of OIE endorsed official programme

The Group was invited to draw up requirements for annual reconfirmation or annual updates for the new category of the OIE endorsed official control programme for FMD, in line with the other officially recognised disease status according to Article 8.5.48. The Group noted that the descriptive document of the Progressive Control Pathway for FMD control (PCP-FMD) stated (at page 6) that the GF-TADs FMD Working Group (GF-TADs FMD-WG) would provide a template questionnaire for annual evaluation of progress in the defined PCP-FMD stages. It was considered useful to aim at harmonisation between this template and the OIE requirements concerning the OIE endorsed official control programme for FMD requirements described in the *Terrestrial Code*. Dr Joseph Domenech informed the Group that the PCP-FMD related template would be ready by 2012. Due to lack of time and the reason above the task of providing a form for annual reconfirmation was deferred to the next meeting of the Group.

8. Other matters

8.1. Update on the organisation of the second global conference on FMD control

Dr Joseph Domenech briefed the Group on the OIE/FAO pledging conference on FMD to be held in Bangkok in June 2012. The conference would take place either the week of 19 or 26 June 2012 for 2.5 days (a technical meeting for 1.5 days and a pledging meeting for 1 day). Between 300-400 participants were expected. The preparatory committees (Steering, Scientific and Organising Committees) would be formed by FAO and OIE very shortly.

8.2. Update on the activities of the GF-TADs Working Group on FMD

Dr Joseph Domenech reported on the past meetings of the GF-TADs FMD-WG held in May and June 2011. He informed the Group that a representative of the *ad hoc* Group on FMD and/or Scientific Commission would also attend future meetings that would discuss the Global FMD control strategy being elaborated by FAO and OIE. The first draft of the Strategy would be available after a meeting of the GF-TADs FMD-WG that would be extended to invite additional experts and CVOs to discuss the concepts in September 2011. The Global Strategy for FMD Control would be finalised at a meeting in

February in 2012. The idea was to present the Global Strategy at the Pledging Conference in June 2012. Costing of the Global Strategy for FMD Control would be done in parallel with help from the World Bank, but the request for country-specific data needed would best be sent to the countries concerned before the end of this year.

There was a request to the GF-TADs FMD-WG that the *ad hoc* Group on FMD regularly receives the minutes of the GF-TADs FMD-WG meetings to keep the *ad hoc* Group informed about the new developments. Dr Joseph Domenech informed the Group that the minutes of the meetings would be provided.

8.3. Opinion of the *ad hoc* Group on the revised version of the PCP-FMD tool

The Group reviewed the latest version of the PCP-FMD tool. The Group raised questions on what would happen if countries failed to maintain their PCP-FMD stage and whether they would be 'downgraded', what the process would be, what criteria would be used to determine whether they should be downgraded and who would downgrade them.

Dr Joseph Domenech reminded the Group that FMD control had a strong component of regional collaboration and progress and that by experience acting in isolation would be to the detriment of countries. The PCP-FMD tool would be a transparent way of harmonisation in FMD control and by having experts involved, the process could be 'evaluated'. Regional meetings and organisations would also play an important role.

The PCP-FMD tool was an evaluation process for countries to understand where they were positioned in terms of FMD control. Countries could ask for external review and assistance via the GF-TADs, but it was not compulsory. The GF-TADs FMD-WG would not automatically evaluate the country dossiers prior to submission to the OIE, but would assist countries in the preparation of the dossiers, if they wished so. However, it would be difficult for a country to follow the PCP-FMD pathway without any assistance or in complete isolation and countries should be encouraged to use both, the tool itself and the GF-TADs framework. The use of the PCP-FMD tool was not compulsory, but was meant to assist countries to (self-) assess the progress in control of the disease. The GF-TADs FMD-WG would ensure that the plan submitted by the country was implementable.

According to the Article 8.5.48 of the *Terrestrial Code*, the *ad hoc* Group on FMD had no legal grounds for not considering an application for endorsement if there was no external evaluation of their control programme. The Group suggested adding an encouragement of external evaluation of their control programme to Article 8.5.48, as it was done for evidence from PVS evaluations, i.e. that an external review would be to the benefit of the country. In addition, aspects such as regional situations and external evaluation were not well referred to in the current questionnaire for OIE endorsed official control programmes for FMD.

The Group further suggested considering whether or not to include the evaluation by the GF-TADs FMD-WG and according to the PCP-FMD tool as prerequisite for OIE to endorse the official control programme for FMD in view of the whole process being still not fully established. For example, the GF-TADs FMD-WG had not yet been fully appointed and the TORs were still subject to endorsement by the Global GF-TADs Steering Committee. The pledging conference in June 2012 would determine if there was sufficient funding available to move forward.

The Group noted that it would be difficult to evaluate an FMD control programme without the framework and background of what had been ongoing prior to the application. The Group shared the vision that the PCP-FMD tool become a requirement for FMD control and that this requirement be included in the *Terrestrial Code* provisions as such.

On request of the Group, Dr Joseph Domenech clarified the degree of details and methodology on the value-chain analysis mentioned in the PCP-FMD tool as this could be very difficult for certain countries to perform. He indicated that this term replaced the risk analysis across the marketing chain by taking into account segments of productions, determining economic importance of each section and assessing risks along the production and marketing chain (movement of animals and products when there are price differentials). The Group considered that this part was to be explained in more detail in the document and made clear that this was not meant to be a reference to a defined methodology.

The Group commended the authors for the document of the PCP-FMD tool.

9. Finalisation and adoption of the draft report

The Group reviewed and amended the preliminary draft report provided by the rapporteur. The Group agreed that the report would be subject to a short period of circulation to the Group for comments and adoption.

The next meeting of the *ad hoc* Group was scheduled for 22-24 November 2011.

…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP
ON EVALUATION OF FOOT AND MOUTH DISEASE STATUS OF MEMBERS
Paris, 27 - 29 June 2011

Agenda

1. Opening
2. Adoption of the agenda and appointment of a rapporteur
3. Feedback from the OIE expert mission to the Thrace region of Turkey, May 2011
4. Issues on FMD wildlife-livestock interface
5. Evaluation of a request from Members for the recognition of FMD free zone where vaccination is not practised:
   - Argentina
6. Refinement of Chapter 8.5. with the objective of improving internal consistency and aligning it with the Questionnaire
7. List of topics that needed to be addressed by Members for annual reconfirmation of OIE endorsed official programme
8. Other matters
   - 8.1. Update on the organisation of the second global conference on FMD control
   - 8.2. Update on the activities of the GF-TADs Working Group on FMD
   - 8.3. Opinion of the *ad hoc* Group on the revised version of the PCP-FMD tool
9. Finalization and adoption of the draft report

Appendix II

MEETING OF THE OIE AD HOC GROUP ON EVALUATION OF FOOT AND MOUTH DISEASE STATUS OF MEMBERS

Paris, 27 - 29 June 2011

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Appendix IX

Original: English
July 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON DISEASES OF HONEY BEES

Paris, 5–7 July 2011

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1. Opening and purpose of the meeting

The OIE *ad hoc* Group on Diseases of Honey Bees met for the second time from 5 to 7 July 2011 at the OIE Headquarters in Paris, France. Dr Bernard Vallat, Director General of the OIE, welcomed the participants. He informed the participants that a press release, entitled "Health problems of bees are due to multiple factors", was published on the OIE website in April 2010 following the first meeting of this Group and based on that meeting's report. He also informed the Group that bee health was included as a priority in the OIE Strategic Plan 2011-2015, which was adopted by the OIE Members in May 2010. Regarding the Terms of Reference for this second meeting of the Group which included in particular addressing and replying to the technical comments received from OIE Member Countries on the proposed updated version of the chapters of the *Terrestrial Code* related to honey bees, Dr Vallat stressed the importance of these chapters as a tool to promote the surveillance and control of bee diseases at national and international level. He also highlighted the importance of the veterinary services worldwide for promoting bee health. In reply to a question from a participant of the Group on the control of invasive species worldwide, Dr Vallat informed the participants that although no OIE standards had been developed specifically for this purpose so far, the issue could be tackled from the animal health perspective by the OIE if it was so requested by the OIE Member Countries. Finally he mentioned that two volumes of the OIE *Scientific and Technical Review* dedicated to invasive species had already been published.

2. Designation of chairperson and rapporteur

The meeting was chaired by Dr Wolfgang Ritter and Dr Howard Pharo acted as rapporteur.

3. Adoption of the Agenda and Terms of Reference

The adopted Agenda and Terms of Reference, and the List of Participants, are presented in Appendices I, II and III of this report, respectively.

4. Review and reply to the technical comments received from OIE Member Countries on the proposed updated versions of the honey bee disease-chapters for the *Terrestrial Code*

Chapter 4.14. on Hygiene and disease security procedures in apiaries

The comments received from OIE Member Countries were reviewed and taken into consideration in proposing an updated version of Chapter 4.14.

Based on comments from Member Countries, the Group considered that the current title for the chapter did not adequately reflect its content, and therefore proposed a new title: "Official health control of bee diseases".

The Group considered that the purpose of the chapter should be clearly stated at the beginning of each chapter and that an introduction should be provided at the beginning of current Article 4.14.3. on "Conditions for approval of breeding apiaries" to achieve consistency with the other articles in the chapter, most of which have an introductory paragraph.

The Group also considered that a minimum requirement for official health control should include official registration of apiaries, and therefore proposed a new article on this topic (new Article 4.14.2. on Official registration of apiaries by the Veterinary Authority in the whole country).

General Comments from the Group on the disease-specific chapters

The Group felt the need to draft a general introductory chapter to the disease-specific chapters of the *Terrestrial Code* to inform readers of the specific challenges encountered with international trade in bees and bee products, with surveillance and control of bee diseases and with bee health in general (difficulty of eradicating bee diseases once they are introduced into a country, introduction of exotic bee species through international trade, etc.).

Some bee diseases (e.g. Acarapisosis and Varroosis) are now so widespread that in the future these may no longer be listed by the OIE under the current OIE criteria for listing diseases and may also not have a chapter in the *Terrestrial Code*. However the Group was of the opinion that for the time-being, these chapters may be useful for the few countries still free from the diseases and for isolated areas (islands, valleys, oases, etc.) that may be able to claim to be a zone free of the diseases. The Group was informed that Chapter 1.2. of the *Terrestrial Code* on the criteria for listing diseases was currently being updated. The Group was therefore of the opinion that once the updated version of the chapter has been adopted by the World Assembly of Delegates (Assembly), it would be useful to review whether, based on these criteria, it would still be relevant to keep all the bee diseases currently listed.

In the "General provisions" (article 9.X.1.) of each of the disease-specific chapters addressed by the Group during the meeting, the Group tried to harmonise the information provided and to indicate clearly the species of bees affected by the disease and the species of the pathogen or pest causing the disease.

The Group noted that, in the generic article 9.X.3. on "Determination of the status of a country or zone for a specific pathogen or pest" and 9.X.4. on "Country or zone free from a disease" of each of the disease-specific chapters related to honey bees, the use of the term "risk assessment" was not completely consistent with the definition of this term in the Glossary of the *Terrestrial Code*. Indeed in that definition, risk assessment applies uniquely to the importing country. Therefore the Group proposed that the term "risk assessment" in these articles be replaced by a more appropriate term such as "review of the [*pest*] status".

Regarding point 2 (free status as a result of an eradication programme) of the generic article 9.X.4. on country or zone free from a pest in each of the disease-specific chapters of the *Terrestrial Code*, although some Member Countries could be interested in implementing such an eradication programme, the Group felt that for most of the bee diseases (in particular small hive beetle infestation, *Tropilaelaps* infestation and varroosis), it would be practically impossible for Member Countries to achieve free status owing to the fact that these diseases are almost impossible to eradicate once established in a country. For this reason, the Group was not convinced of the need to keep point 2 in the disease-chapters of the *Terrestrial Code* and agreed to leave the decision to the relevant OIE Specialist Commissions.

The Group noticed that in different parts of the disease-specific chapters, some paragraphs were marked as "under study". Wherever possible, the Group proposed amended wording to resolve the issue that was "under study". Concerning the part of the chapters referring to "procedures recommended by the OIE" (under study), the Group proposed to adopt the procedures developed by New Zealand in the context of risk analyses on honey bee genetic material and honey bee products.

Chapter 9.1. on Acarapisosis of honey bees

The comments received from OIE Member Countries were reviewed and taken into consideration in proposing an updated version of Chapter 9.1.

Chapter 9.4. on Small hive beetle infestation

The comments received from OIE Member Countries were reviewed and taken into consideration in proposing an updated version of Chapter 9.4.

The Group considered that besides trade in bees and bee products, a potential route of introduction of small hive beetle was through imported ripe fruits. Although these commodities were not part of the OIE mandate and were not covered by the *Terrestrial Code*, the Group was of the view that Member Countries should be advised to ensure that there was good coordination between the animal health and plant health inspection services with regard to this risk. In the general provision of this chapter, this potential threat had been highlighted.

Chapter 9.5. on Tropilaelaps infestation of honey bees

The comments received from OIE Member Countries were reviewed and taken into consideration in proposing an updated version of Chapter 9.5.

The Group considered that for the articles 9.5.5. and 9.5.6. the only way to safely import brood combs was from countries that are free from *Tropilaelaps* species. Therefore the Group considered that imports from countries not free from *Tropilaelaps* species should be restricted only to bees without combs. Based on this approach, the Group proposed measures to enable their safe trade.

Chapter 9.6. on Varroosis of honey bees

The comments received from OIE Member Countries were reviewed and taken into consideration in proposing an updated version of Chapter 9.6.

The Group decided to extend the chapter to all species of *Varroa* instead of only *Varroa destructor* because the genus *Varroa* includes several species and to focus only on *Varroa destructor* could lead to the spread of the other *Varroa* mite species.

The Group considered that the concept of apiary freedom as presented in Article 9.6.4. bis was not technically feasible, apart from possibly in a few very isolated areas such as remote islands or high mountain valleys. Therefore the Group proposed that 9.6.4. bis be deleted.

Chapters 9.2. on American foulbrood of honey bees and 9.3. on European foulbrood of honey bees

There was insufficient time to review and reply to the technical comments received from OIE Member Countries on the proposed updated version of the chapters on the bacterial diseases of honey bees.

5. Review and update, if necessary, the relevant part of Chapter 5.10. Model veterinary certificates for international trade in live animals, hatching eggs and products of animal origin

There was insufficient time to review and update the relevant part of Chapter 5.10.

6. Other matters

The Group agreed to draw the attention of the Scientific Commission to the issue that arose at a recent workshop held in Swaziland concerning the threat posed to commercial beekeeping worldwide by *Apis mellifera capensis*. The Cape honeybee (*Apis mellifera capensis*), which was present in the Cape region of South Africa, could be considered as an invasive species for the other population of honey bees present in Southern Africa (*Apis mellifera scutellata*). *Apis mellifera capensis* caused about 30% colony losses in *Apis mellifera scutellata* in the north of South Africa. However *Apis mellifera capensis* had, until now, not spread beyond South Africa. Therefore the importation of bees from the Cape region into neighbouring countries should be avoided.

In follow-up to its previous meeting (25-27 January 2010), the Group agreed that nosemosis could be a future concern for honey bee health owing to the emergence of a new species of *Nosema* (*Nosema ceranae*). The Group considered that the disease could potentially be included in the list of OIE diseases when Chapter 1.2. of the *Terrestrial Code* on the criteria for listing disease, which has currently being updated, would be adopted by the Assembly. However, the Group noted that *Nosema ceranae* has already dispersed, and there has considerable debate about its pathogenicity.

The Group noted that since the last meeting, knowledge on some bee viruses has improved considerably and therefore that it might be appropriate to consider the possible listing of bee viruses at a future meeting of the Group once the revision of the criteria for the inclusion of a disease in the OIE list would be finalised.

The Group finally proposed another meeting within the next 6 months to address the issues that were not addressed at this meeting owing to lack of time.

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…/Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON DISEASES OF HONEY BEES

Paris, 5–7 July 2011

Agenda

1. Opening and purpose of the meeting
2. Designation of chairperson and rapporteur
3. Adoption of the agenda and Terms of Reference
4. Review and reply to the technical comments received from OIE Member Countries on the proposed updated versions of the honey bee disease-chapters for the *Terrestrial Code*
5. Review and update, if necessary, the relevant part of Chapter 5.10. Model veterinary certificates for international trade in live animals, hatching eggs and products of animal origin
6. Other matters

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON DISEASES OF HONEY BEES

Paris, 5–7 July 2011

Terms of Reference

- Review and address OIE Members' comments received following the update of the chapters of the *Terrestrial Code* related to honey bees:

    i. Chapter 4.14. Hygiene and disease security procedures in apiaries,

    ii. Chapter 9.1. Acarapisosis of honey bees,

    iii. Chapter 9.6. Varroosis of Honey bees,

    iv. Chapter 9.5. *Tropilaelaps* infestation of honey bees,

    v. Chapter 9.4. Small hive beetle infestation (*Aethina tumida*),

    vi. Chapter 9.2. American foulbrood of honey bees,

    vii. Chapter 9.3. European foulbrood of honey bees.

- Review and update if necessary the relevant part of the Chapter 5.10. Model veterinary certificates for international trade in live animals, hatching eggs and products of animal origin

Appendix III

MEETING OF THE OIE *AD HOC* GROUP ON DISEASES OF HONEY BEES

Paris, 5–7 July 2011

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Appendix X

Original: English
July 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON OFFICIAL DISEASE STATUS RECOGNITION OF CLASSICAL SWINE FEVER

Paris, 19 - 21 July 2011

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A meeting of the OIE *ad hoc* Group on Official Disease Status Recognition of Classical Swine Fever (CSF) was held at the OIE Headquarters, Paris from 19 to 21 July 2011.

1. Opening, Adoption of the agenda and appointment of a rapporteur

The OIE *ad hoc* Group on was welcomed by Dr Lea Knopf from the Scientific and Technical Department. She provided a brief introduction on the objectives of the meeting. Dr Kris de Clercq, Vice-President of the Scientific Commission for Animal Diseases (Scientific Commission), explained the proposals of inclusion of a CSF free status with vaccination into the draft chapter as decided by the Scientific Commission and reflected in the report of the last meeting of the Group in November 2010. On the third day the Director General of the OIE joined the Group. He thanked the experts for their support and exchanged with the experts on the options approach chosen for the CSF free status practicing vaccination.

The meeting was chaired by Prof. Trevor Drew and Dr Cristóbal Zepeda was designated as rapporteur. The adopted agenda and list of participants are attached as Appendices I and II, respectively.

2. Update of the *Terrestrial Code* draft chapter on CSF (November 2010) taking into consideration the comments of the Scientific Commission and the minor revisions of the current chapter on CSF, concepts of zoning & compartmentalisation and provisions for consistency with the official disease status recognition procedures

Definition of wildlife

The Group was asked to look again at issues concerning the wildlife-livestock interface and ensure the revised Chapter was in line with the adopted definitions for wildlife in the *Terrestrial Code* 2011. The Group confirmed it would only consider varieties of *Sus scrofa* as of relevance in the *Terrestrial Code*. The following categories of pigs were identified:

- Domestic pigs
- Captive wild boars
- Free-range domestic pigs
- Wild boars
- Feral pigs

The Group agreed that one of the most significant factors in the epidemiology of CSF was the husbandry system under which animals were managed (i.e. under direct human supervision and control versus not under direct human supervision and control). Therefore, the management categories of animals listed above could be grouped into:

- Domestic pigs (including free-range domestic pigs) and captive wild boar and,
- Feral pigs and wild boar

In CSF affected countries or zones, surveillance in wild boar and feral pigs may be required, unless it could be shown that they did not come in contact with or were effectively separated from domestic pigs or captive wild boar. Other susceptible species should be considered only if they were judged to present a significant risk to domestic populations and in the context of the local epidemiology.

Incubation period

The Group agreed to define the incubation period for postnatal infections as 14 days. The role of persistently infected animals, i.e. prenatally infected pigs, in the epidemiology of CSF was discussed. For prenatal infections and late onset of disease, the incubation period could be much longer. However, in the case of domestic pigs and captive wild boars, persistent infection would be unlikely to occur in the absence of clinical signs in animals of the same herd, because postnatal infection is inevitable to take place in the rest of the herd.

Containment zone

The Group discussed extensively the application of the concept of containment zone. It was decided to mimic the approach used in the FMD chapter and have a single set of requirements for domestic, captive wild, feral and wild animals.

The wording requiring the identification of the primary outbreak was changed to state that the investigation to find the primary outbreak and its likely source had been conducted, not that the primary outbreak had been identified, since this may not always be possible. The important baseline criterion in establishing a containment zone was that it included all outbreaks/cases. The Group suggested that a similar wording be considered for the FMD chapter.

Currently, a lapse of two times the incubation period after stamping out of the last case was required before applying for recognition of a containment zone. The Group accepted that this would provide greater assurances for trading partners. However this waiting period may limit the usefulness of the concept, if the period was not significantly shorter than the time required for reinstatement of free status through the classical pathway of recovery of free status (applying to entire territory of the free country or zone in one step).

In the case of outbreaks in wild boar and feral pigs, the requirements of compulsory (modified) stamping-out were changed from ‘applying such measures’ to ‘giving consideration to such’. The reason for this was that stamping out is not easily feasible in wild or feral animal populations.

CSF free countries and zones where vaccination is practiced

The Group discussed the inclusion of additional articles on commodities, as a status of CSF free countries or zones where vaccination is practiced had to be considered.

Importation of live pigs and wild boar

Persistently infected animals would be antibody negative and therefore could only be detected by diagnostic tests targeting detection of the virus. However, given that animals for export were required to be non-vaccinated, and if animals were held together for a period of time, seroconversion would occur among cohorts in case of an infected animal present. In this situation, testing for CSF antibodies only would therefore provide the necessary assurances for the importing country. In consequence, when importation involved single animals or animals were kept separately, testing for CSF virus would be necessary.

Recovery of free status

The time periods for recovery of free status in countries or zones where vaccination was practiced were discussed. It was decided to use the same waiting periods as used for FMD, although there might be justification for a shorter period, provided that sufficient levels of surveillance were applied.

The Group considered the use of vaccine in CSF virus (CSFV) infected herds, i.e. emergency vaccination in the occurrence of an outbreak. There was concern that the consequences could include a low level of chronic disease/infection as well as a risk for prenatal infections in such populations. Therefore, the Group recommended that a country or zone where a stamping out policy of infected herds was not applied should not follow the conditions of 'recovery of free status', but preferably the conditions of 'CSF free country where vaccination is practiced' or 'CSF free zone where vaccination is practiced'.

Commodities traded

Semen

The importation of semen from CSF free countries where vaccination is practiced was discussed. Semen originating from vaccinated animals was considered to be of low risk and therefore serological tests would provide sufficient assurance. For semen of non-vaccinated animals it was agreed that semen of donor animals within CSF free compartments could be considered for export without specific additional testing of animals, because these compartments would be subjected to continuous monitoring and surveillance. For semen of non-vaccinated animals not living in a CSF free compartment, testing of animals for antibodies and virus would be necessary.

Embryos

The Group agreed that the conditions for semen could equally apply for *in vivo* derived embryos and discussed whether these provisions should be merged into a single article. However, given that the provisions of the FMD chapter were kept separate, it was decided to follow the same template.

Hides and skins

The Group noted the recommendations available to authorities with respect to FMD concerning importation of hides and skins (Article 8.5.30), whereby semi-processed leather goods may be imported without restrictions. The Group considered that the conditions for CSFV inactivation in hides and skins described in the current Article 15.2.22 were more specific and for this reason were retained.

Inactivation procedures

When the Group reviewed the provisions in Articles 15.2.16 to 18, it discovered a high degree of similarity and suggested those articles to be combined into a single article. The Group also noted that the methodology for the destruction of CSFV in these commodities was "under study" since some time and were not yet updated within the current chapter. The Group agreed with the comment provided by New Zealand and added provisions for the inactivation of CSFV in casings within article 15.2.22., based on the provisions provided in Article 8.5.41. in the FMD chapter. A method for CSFV inactivation in bristles was also added, identical to the provisions within the FMD chapter.

Surveillance

The articles on CSF surveillance of the older version of the CSF chapter had been reviewed and updated by the *ad hoc* Group on Epidemiology by the end of 2009 and were circulated to OIE Members in 2010. The updated articles on surveillance were used as the basis for additional edits. In consequence the existing articles on surveillance in the chapter were deleted and replaced with the updated ones. The Group added a specific article for the surveillance requirements for the official recognition of CSF free countries or zones where vaccination is practiced.

Surveillance provisions for CSF free compartments: The wording describing the biosecurity measures to separate the subpopulations was removed as it was not part of surveillance and they were already included in Chapters 4.3 and 4.4.

3. Update of the draft questionnaire for Members to support applications for official recognition of CSF free status and other pending issues

Due to lack of time the Group could not yet finalise the revisions as requested. An article on the interpretation of diagnostic tests was considered essential to complete the provisions on CSF surveillance, which still needed to be drafted for future inclusion. The draft questionnaire for Members applying for official recognition of CSF free status would need to be checked again taking into account the changes applied to the CSF chapter in this meeting. In particular, a questionnaire for the recognition of countries and zones where vaccination is practiced was needed.

It was suggested to recommend to the Scientific Commission that it request the Director General to convene the Group for another meeting.

4. Finalisation and adoption of the draft report

The Group reviewed and amended the preliminary outline of the draft report provided by the rapporteur. The Group agreed that the report and revised chapters would be subjected to a short period of circulation to the Group by email for minor comments and final adoption.

In his concluding remarks, the chairman thanked the rapporteurs and all the participants of the Group for their active participation and meaningful discussions.

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…/Appendices

Appendix I

OIE *AD HOC* GROUP ON OFFICIAL DISEASE STATUS RECOGNITION OF CLASSICAL SWINE FEVER (CSF)

Paris, 19 – 21 July 2011

Agenda

1. Opening, Adoption of agenda and appointment of a rapporteur

2. Update of the *Terrestrial Code* draft chapter on CSF (November 2010) taking into consideration the comments of the Scientific Commission and the minor revisions of the current chapter on CSF, concepts of zoning & compartmentalisation and provisions for consistency with the official disease status recognition procedures

3. Update of the draft questionnaire for Members to support applications for official recognition of CSF free status and other pending issues

4. Adoption of the draft report

Appendix II

OIE *AD HOC* GROUP ON OFFICIAL DISEASE STATUS RECOGNITION OF CLASSICAL SWINE FEVER (CSF)

Paris, 19 – 21 July 2011

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Appendix XI

Original: English
July 2011

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON BRUCELLOSIS

Paris, 20 - 22 July 2011

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Opening

The meeting of the OIE *ad hoc* Group on Brucellosis (hereafter the Group) was held at the OIE Headquarters, Paris from 20 – 22 July 2011. Dr Lea Knopf, Scientific and Technical Department of the OIE, welcomed the Group and outlined the purpose of the meeting. Dr Kris de Clercq, Vice-President of the Scientific Commission for Animal Diseases (Scientific Commission) was present to provide guidance to the Group on the expectations and position of the Scientific Commission concerning the approaches to be used in the revision of the brucellosis chapters. Dr Kris de Clercq also welcomed and thanked the Group on behalf of the Scientific Commission for its work conducted so far. The Group was invited during its meeting to debate and take into consideration aspects of the wildlife-livestock interface with regard to brucellosis, including the recently adoption of the definitions related to 'wildlife'. During the second day of the meeting the Director General of the OIE joined the Group. He welcomed the experts, thanked the experts for their support and exchanged with the experts on the new approach chosen for the brucellosis chapters.

1. Adoption of the agenda and appointment of a chair and rapporteur

The Group was chaired by Dr Bruno Garin-Bastuji, and Drs Francisco Javier Reviriego Gordejo and Ana Maria Nicola acted as rapporteurs. The Group endorsed the proposed agenda.

The Agenda and list of participants are presented as Appendices I and II, respectively.

2. Introductory explanations on the re-structuration of the Volume 2 (disease-specific chapters) of the *Terrestrial Code* and the planned classification of the brucellosis chapters per pathogen instead of animal species

The Group was informed by Dr Sarah Kahn, Head of International Trade Department of the OIE, on the new structure proposed for the *Terrestrial Code*: Where ever possible the disease-specific chapters would be devoted to disease agents throughout the *Terrestrial Code* and not to diseases by animal species as it currently was in some cases.

Following an in depth discussion on this issue and options available for brucellosis, the Group expressed some concerns about the implications of such new approach for brucellosis. Some pros and cons of having separate chapters for *Brucella abortus*, *Brucella melitensis and Brucella suis* versus combining all *Brucellae* into one *Terrestrial Code* chapter were debated. One of the main arguments for addressing the three *Brucella* species together in one chapter was that the three *Brucella* species of concern *(B. abortus, B. melitensis and B. suis*) were genetically so homologous that they could be considered as a single bacteria species. The taxonomy reflected more the history of the control of the disease than the molecular biology (genetics) of the agent. In some countries, *B. abortus* was the only species infecting cattle. On the contrary, in most countries, where several animal species are in contact, *B melitensis* and sometimes *B. suis* were frequently isolated from and causing disease in several species, including cattle. In addition, in many countries two or three of these *Brucella* species could co-exist in the same animal species, particularly in cattle. In light of these facts, *B. melitensis* or *B. suis* represented sometimes the most important species causing brucellosis in cattle. Moreover, control and eradication programmes (including those officially recommended by international organisations) were essentially based on serological testing which did not differentiate between the three *Brucella* species in cause. Furthermore, all of these three *Brucella* species were causing Brucellosis infection in humans.

For the reasons above, the Group unanimously agreed to merge all three *Brucella* species into a single disease agent group and to propose to the Scientific Commission a single chapter by disease agent covering *Brucella* infections due to *B. abortus*, *B. melitensis* and *B. suis*.

The representative of the Scientific Commission supported the approach proposed by the Group as this was justified on a scientific basis and that pros and cons had been thoroughly discussed.

The approach proposed by the Group was also presented to the Director General of the OIE and to the Head of the International Trade Department by justifying the option chosen and with explanation that the eventual draft chapter would not jeopardize the free status achieved by certain OIE Members for bovines and/or sheep and goats.

The Group generally discussed the problematic posed by the presence of disease agents in wildlife and decided that this issue should be properly addressed for brucellosis in the relevant articles of the draft chapter. The Group used the new definitions related to wildlife throughout the chapter.

It was decided that the outcome of the work would be a clean new document. It was agreed that the baseline document was the previous chapter on bovine brucellosis which was updated during the meeting held at the OIE Headquarters from 24 – 26 November 2009 and that the main changes introduced would be captured in the report of the meeting.

3. Revision of the *Terrestrial Code* chapters on brucellosis, taking into account concepts of herd freedom

A new chapter on *Brucella* infections was developed, taking into consideration the latest scientific information with respect to camelids and wildlife, as follows.

General provisions

The overall aim of the chapter was to address the health risks related to *Brucella* infection in humans and animals including canids, leporids equidae, camelids and suids by laying down recommendation for the animal species within the scope of the chapter. The Group felt that risks related to animal species other than those covered by the scope of this chapter should be addressed depending on the epidemiological circumstances of the country or region which might vary considerably.

The scope of the chapter was enlarged to cover under *Brucella* infection the three *Brucella* species of concern (*B. abortus, B. melitensis* and *B. suis*) and the relevant susceptible species traded (domestic and captive wild animals). For the purpose of the chapter, five categories of animal populations were listed and defined as regards to disease control measures to be implemented for trade (bovines, ovines and caprines, porcines, camelids, and wild captive Cervidae). As foreseen in the *Terrestrial Manual*, tests used for bovines were recommended for camelids and Cervidae. The references for diagnostic tests that could be used for camelids were based on the report of the OIE *ad hoc* Group on Diseases of Camelids held at the OIE Headquarters from 3 -5 May 2010.

A case definition of *Brucella* infection was proposed.

The incubation period and the infective period could not be defined for *Brucella* as it could last as long as the life-span of the animals.

Safe commodities

A list of safe commodities was elaborated. Concerning embryo and oocytes, the Group recommended that OIE contact IETS and revise chapters 4.7. to 4.9. as only *B. abortus* and *B. ovis* were currently mentioned. In the absence of scientific information the Group decided to make brucella status specific provisions for embryos and oocytes for importation. Skins and hides that were properly processed were considered safe. The proposed description of processing for skins and hides was “cured”. This term needed to be further verified by the International Trade Department to confirm that “cured” was a well-defined processing suitable for *Brucellae* inactivation.

Articles on country and zone free of *Brucella* infection and recovery of free status

No major changes were proposed from the previous chapter drafted during the meeting held at the OIE Headquarters from 24 – 26 November 2009. The articles were adapted to the approach proposed.

General provisions of *Brucella* freedom should apply by category of animals, i.e. to all five categories, while provisions requiring serological testing could not be applied to porcines. The diagnostic sensitivity and specificity of serological tests in porcines were not considered suitable in the context of the *Terrestrial Code*.

With regard to camelids and wild captive Cervidae, the provisions related to the minimum age for testing were related to the age of sexual maturity of the corresponding animal species.

The provisions related to free country or zone with vaccination were meant to apply to cattle, sheep and goats only, because there was insufficient knowledge available about the performance and safety of vaccines in the other categories of animals.

Articles on herd and flock free of *Brucella* infection

No major changes were proposed on the chapter previously drafted by the Group at its last meeting held in November 2009. The articles were adapted to the approach proposed.

Recommendations for importation of live animals

The provisions were adapted to the new structure of the chapter without any significant change from the previous draft chapter.

Recommendations for importation of other commodities

For other commodities, the provisions were addressed as follows:

- Provisions for embryo and oocytes were added;
- Provisions for the importation of fresh meat and meat products were reviewed and requirements were elaborated for specified high-risk organs not listed under safe commodities;
- Provisions for the importation of milk and milk products were simplified and reference was made to the Codex Alimentarius Code of Hygienic Practice for Milk and Milk Products;
- Provisions for the importation of wool, coarse and other hair were added.

The Group was informed that a significant number of wild and captive wild hares were translocated (e.g. for hunting purposes). This practice of introducing hares potentially infected with *Brucella* and other disease agents posed a risk to livestock and local wildlife. As of today, no sanitary control measures had been implemented to prevent the spread of brucellosis through hares. To this end, the Group decided to add provisions for trade with live hares (captive wild).

Equids were considered a dead-end host and therefore the provisions of the chapter on the other animal species were considered sufficient to mitigate the *Brucella* infection risk in equids.

Canids were acknowledged as spill over hosts for which the infection would disappear as soon as it was eradicated from the other species. Therefore the provisions of the chapter on other animal species were considered sufficient to mitigate the *Brucella* infection risk in canids.

4. Other matters

The Group expressed its support and agreement with the recommendations of the OIE *ad hoc* Group on Diseases of camelids as well as the recommendations formulated at the 10th Conference of the OIE Regional Commission for the Middle East, held in Qatar from 25-29 October 2009.

5. Finalisation and adoption of the draft report

The Group reviewed and amended the preliminary draft report provided by the rapporteurs. The Group agreed that the report would be subject to a short period of circulation to the Group for minor comments and final adoption.

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.../Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON BRUCELLOSIS

Paris, 20 – 22 July 2011

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Agenda

1. Adoption of the agenda and appointment of a chair and rapporteur

2. Introductory explanations on the re-structuration of the Volume 2 (disease-specific chapters) of the *Terrestrial Code* and the planned classification of the brucellosis chapters per pathogen instead of animal species (by Dr Sarah Kahn, Head of the International Trade Department of OIE)

3. Revision of the *Terrestrial Code* chapters on brucellosis, taking into account concepts of herd freedom

4. Other matters

5. Finalisation and adoption of the draft report

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Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON BRUCELLOSIS

Paris, 20 – 22 July 2011

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