Reducing biological threats thanks to resilient animal health systems

Protecting animals, preserving our future • World Organisation for Animal Health
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Establishing resilient animal health systems to reduce biological threats  

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Biological threats have no borders. For millennia, infectious diseases have spread between animals (both domestic and wild) and humans, resulting in plagues and pandemics of enormous social, economic or environmental impacts. All around the world, animal disease agents, including those transmissible to humans, have the potential to escape by accident from laboratories or to be used as biological weapons because of their wide-ranging economic, health and social impacts and their potential availability.

Recent examples of emerging and re-emerging infectious diseases, such as Ebola or zoonotic influenza, highlight the difficulty of predicting when and where new diseases will naturally emerge or where existing ones will resurface. Moreover, animal pathogens may be used as bio-weapons or in bioterror because they have a high impact, are cheap, easy to acquire and propagate, and can be readily smuggled through border checks undetected.

The biotechnology revolution means that options for engineering animal pathogens are increasing all the time while the cost of doing so is decreasing.

Animals themselves play an important role as biosensors for accidental or deliberate releases of infectious agents and toxins, and for emerging diseases. The same disease surveillance and early detection systems that are in place to detect day-to-day occurrences of natural outbreaks, within countries and at national borders, will also detect deliberate and accidental releases.

Indeed, the most effective and sustainable way to protect against threats from deliberate and accidental releases of animal pathogens is to strengthen existing systems for surveillance, early on-farm detection and rapid response, and for biosafety and biosecurity, whilst fostering scientific networks that work towards altruistic goals. This approach has multiple collateral benefits for animal health, agriculture, public health, poverty alleviation, animal welfare, and economies.

In meeting its mandate to improve animal health, veterinary public health, and animal welfare worldwide, the OIE takes the threat posed by the accidental or deliberate release of animal pathogens very seriously. Acknowledging the important role of coordination between animal and public Health Services and health systems in building resilience against animal disease including zoonoses, the OIE organised, in close collaboration with the World Health Organization (WHO), a Global Conference on Biological Threat Reduction, last June in Paris.

This three-day conference brought together all the key players of the topic. The participants who represented the public health, animal health, ecosystem health, and security sectors included educators, policy- and decision-makers, scientists, security officers, veterinarians and medical doctors. The conference focused on enhancing collaboration and on building a consensus for action to strengthen the ability of public and animal health systems to prevent, detect and respond to all biological threats whether they are deliberate, accidental or natural; in particular, at the animal source of diseases transmissible to humans.

A key outcome of this unprecedented meeting was that good governance of animal and public health national systems, allowing early
The OIE has recently published a new version of its strategy for bio-threat reduction, which focuses on strengthening, enhancing, and developing cross-links between existing health systems against a spectrum of threats from naturally occurring diseases to emerging diseases, bioterrorism and laboratory accidents. On the contrary, countries with weak health systems are particularly vulnerable and, in an age when infectious diseases can travel across borders so quickly, this is a threat to the whole international community.

Consequently, following the conference and on the basis of the work done for ten years on this topic, the OIE has published a new version of its strategy for bio-threat reduction, which focuses on strengthening, enhancing, and developing cross-links between existing health systems.

Moreover, this strategy is consistent with and supported by the OIE’s Sixth Strategic Plan (2016–2020) adopted in May 2015 by the World Assembly of OIE Delegates. It cuts across all of its six objectives.

The OIE’s strategy for bio-threat reduction endorsed by the Paris Global Conference addresses five key areas:
– maintaining scientific expertise as well as setting standards and guidelines
– good governance, capacity-building and implementation of the One Health concept
– global disease intelligence and updates on the latest methods for disease prevention and control
– international cooperation and solidarity between countries
– advocacy and communication.

A summarised paper on this strategy is available on line1.

The social and economic costs and benefits of investing in health systems in peacetime far outweigh the costs of responding to a crisis linked with a preventable biological disaster. Investments in the systems needed to support these policies should be considered a priority in all countries.

Thanks to its scientific network and its tools, aimed at helping its Member Countries to improve the performance of their national Veterinary Services, the good governance of their animal health systems and legislation, and their level of expertise, the OIE will continue to support this objective throughout the implementation of its strategy for bio-threat reduction within its Sixth Strategic Plan.

The implementation of the strategy will be in close conjunction with OIE partners involved in the One Health concept (WHO and the United Nations Food and Agriculture Organization [FAO]), as well as the United Nations Office of Disease Affairs (UNODA) and United Nations Security Council Resolution 1540. This collaboration also includes, among others, INTERPOL, the World Customs Organisation, G7, G20 and the Global Partnership, who all participated in the Global Conference.

Bioterrorism presents a significant threat to countries and regions with risks to human health, the environment, food supply, trade and economic stability, critical infrastructure, confidence in government, and social stability. To be effective the management of bioterrorism threats must be integrated into an all-hazards approach incorporating a whole-of-nation response. This involves the engagement of national and local government ministries and agencies, livestock industry stakeholders, livestock producers and the general public.

National Veterinary Services play a critical role in many facets of bioterrorism risk management. Bioterror agents relevant to Veterinary Services include those that are zoonotic such as plague and anthrax, and those that affect animals, especially livestock, such as foot and mouth disease and rinderpest. In the case of zoonotic diseases, animals may be early sentinels for human health-directed agents and act as an early warning system. In the case of animal health directed bioterrorism, a form of agro terrorism, livestock production animals will probably be the first affected.

FOR ALL NATIONAL VETERINARY SERVICES
THE KEY ACTIONS INVOLVING BIO-THREAT REDUCTION INCLUDE:
− prevention,
− response, and
− recovery.

In the prevention phase, Veterinary Services can collaborate in global threat risk reduction through programmes that totally eliminate the risk. The World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) have taken this pathway in the global eradication of rinderpest (cattle plague) as of 2011. OIE efforts continue with a programme to eliminate rinderpest in laboratory, research, and vaccine production settings to minimise the potential for accidental or intentional release into susceptible livestock populations. A new initiative was launched in 2015 for the global elimination of peste des petits ruminants (PPR), a livestock health threat affecting goats and sheep with a high impact on small-scale producers. These programmes represent a high level model for initiatives to eliminate global biological threats through eradication. Additional activities Veterinary Services may undertake to prevent bio-threats include programmes to increase security and biosecurity of laboratories and research facilities handling select human and livestock infectious agents. In many countries facilities that could be used for terrorist activities such as anthrax vaccine production fall under the authority of National Veterinary Services, and require close monitoring.
National Veterinary Services play a major role in responding to bio-threats. Many bio-threat response programmes mirror on-going activities for endemic and transboundary diseases. These activities include:

- monitoring,
- active and passive surveillance,
- reporting,
- field and laboratory diagnostics, and
- management and disposal of affected animals.

Intentional bio-threat introduction requires additional activities that are not normally part of Veterinary Services’ routine animal disease programmes. Examples include:

- forensic investigation,
- forensic sampling and testing,
- proper chain-of-custody processing, and
- bio-agent identification to identify the origin of the threat agent.

These additional actions require close coordination and cooperation with other national and international players that could include the ministries or departments of interior, health, military, law enforcement, environment, trade, finance, state and other entities not normally encountered in day-to-day operations. In addition, coordination will be required with intergovernmental organisations that are integral to bioterrorism responses including Interpol, security intelligence services, OIE, WHO, FAO, and other entities. Management of infected herds and individuals will be critical to the success of a response programme. Active surveillance and epidemiologic investigation will be needed, euthanasia of animals should follow established OIE standards for humane destruction, and disposal of carcasses should be accomplished in a manner that prevents further spread of the disease and protects the environment. Bio-threat simulation exercises, establishment of relationships, standard operating procedures, responsibilities, and authorities before an actual event will all contribute to an effective response.

In the recovery phase National Veterinary Services assist in replacing lost livestock assets, establishing mechanisms to monitor disease status, and restore trade. To recover from an animal-directed bioterror event, livestock producing farms and sites will need to be free from the disease. Reintroduced breeding stock should be suitable for the climatic conditions, production methods and cultural status of the area and vaccinated as appropriate. Active surveillance programmes should be in place to identify new or recurring infections. National Veterinary Services should work within their government structure and with OIE to re-establish disease containment or disease-free status and restore trade at the earliest opportunity to assist economic recovery.

A 2014 survey of the Veterinary Service of 53 Member Countries of the OIE Region for Europe demonstrated significant gaps in capabilities and capacities for disaster responses in general, and bioterrorism specifically (Table I). Only 40% of

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<td>6</td>
<td>18%</td>
</tr>
<tr>
<td>Trained personnel</td>
<td>12</td>
<td>35%</td>
</tr>
<tr>
<td>Laboratory capacity at appropriate biosecurity level</td>
<td>9</td>
<td>26%</td>
</tr>
<tr>
<td>Surveillance system</td>
<td>4</td>
<td>12%</td>
</tr>
<tr>
<td>Equipment/supplies including veterinary drugs</td>
<td>8</td>
<td>24%</td>
</tr>
<tr>
<td>Reporting authority/capability</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>Forensic and attribution capacity</td>
<td>8</td>
<td>24%</td>
</tr>
<tr>
<td>Budget, resources</td>
<td>11</td>
<td>32%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>6%</td>
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</table>

respondents indicated the use of guideline or standards in their disaster management and risk reduction programmes, and only 10% of respondents indicated that lessons learned reports were publicly available following disaster response activities. In the area of animal-directed bioterrorism, 77% of respondents indicated they had the authority to investigate or support investigation of animal-directed bioterror events. Additionally, 73% of respondents indicated they had the capacity to investigate or support investigation of such animal health events. However, there were also authority and capability mismatches with 7 countries out of 37 identifying the authority or responsibility to investigate animal related bioterrorism events, but lacking capacity, and 3 countries identifying the capacity to investigate animal-directed bioterrorism, but lacking authority. These mismatches between authorities and capacities for bioterrorism investigation, plus those countries that had neither, mean that only about 50% of countries responding to the survey had both the authority and capacity to investigate or support investigation of animal-directed bioterror events. This gap in bioterror capacity is highly significant and puts these countries and their regional neighbours and trading partners at high risk of bio-threat events. 94% of the survey respondents identified activities that OIE could support to enhance their national service disaster management and bio-threat programmes. These activities fall into general categories of guidance, training and education, communications, and technical support as seen in Table II.

OIE is currently in the process of drafting international guidelines for veterinary disaster management and risk reduction including bio-threats through the OIE ad hoc Group on Disaster Management and Risk Reduction in Relation to Animal Health and Welfare and Veterinary Public Health. These guidelines coupled with the survey recommendations provide the platform for consideration of future OIE activities in the bio-threat area.

Table II
Activities that OIE could support to enhance national service disaster management and bio-threat programmes

<table>
<thead>
<tr>
<th>Action/Activity</th>
<th>Reported</th>
<th>Percentage</th>
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<tr>
<td>Provide guidance through standards in the Terrestrial Animal Health Code</td>
<td>34</td>
<td>71%</td>
</tr>
<tr>
<td>Convene an OIE global summit on animals in disasters and bioterrorism</td>
<td>25</td>
<td>52%</td>
</tr>
<tr>
<td>Provide assistance for writing animal disasters and bioterrorism legislation</td>
<td>17</td>
<td>35%</td>
</tr>
<tr>
<td>Embed animal disasters and bioterrorism assessments into PVS</td>
<td>17</td>
<td>35%</td>
</tr>
<tr>
<td>Develop online training programmes for animals in disasters and animal-directed bioterrorism</td>
<td>31</td>
<td>65%</td>
</tr>
<tr>
<td>Develop regional workshop programmes for animals in disasters and animal-directed bioterrorism</td>
<td>33</td>
<td>69%</td>
</tr>
<tr>
<td>Provide animal disasters and bioterrorism planning assistance teams</td>
<td>16</td>
<td>33%</td>
</tr>
<tr>
<td>Provide animals disasters and bioterrorism tabletop exercises</td>
<td>24</td>
<td>50%</td>
</tr>
<tr>
<td>Facilitate incorporation of animal disasters and bioterrorism into veterinary curriculum</td>
<td>19</td>
<td>40%</td>
</tr>
<tr>
<td>Facilitate mutual support agreements between countries in the event of natural disaster and bioterrorism events</td>
<td>19</td>
<td>40%</td>
</tr>
<tr>
<td>Create OIE Collaborating Centre on Animals in Disasters and Bioterrorism</td>
<td>25</td>
<td>52%</td>
</tr>
</tbody>
</table>

All percentages are rounded to whole numbers and represent the percent of total responses including responses of ‘No’.
Health Organization, and other intergovernmental bodies’ definitions of disasters and the disaster management cycle.

Key points in the draft guidelines include:
− An all-hazards approach including bio-threats and agro-terrorism in the event of intentional or accidental release of bio agents or chemical/radiological threats to human and animal health.
− A national approach that includes the whole of government and whole of society.
− Coordination with government, intergovernmental, private sector, and public entities.
− Emphasis on preparedness and mitigation or prevention phases of the disaster management cycle.

The draft guidelines provide a framework for critical items to be addressed in each phase of the disaster management cycle. A legal framework is necessary to define the responsibilities and authorities of the National Veterinary Service. Risk analyses should include: hazard identification and mapping, risk assessment, vulnerability analysis, capacity analysis, and risk evaluation. Effective and timely communications with other government and intergovernmental agencies and organisations, sector stakeholders, and the public are a critical element. National Veterinary Services are encouraged to undertake needs assessments and seek sufficient financing, human resources, facilities, and education and training to meet their responsibilities before, during and after an event.

The ad hoc Group considers that ‘Disaster Management and Disaster Risk Reduction programmes are dynamic and in a continual process of development as hazards, technologies, legislation and standards evolve. Applying internationally accepted guidelines and standards adopted by national and regional authorities will allow Veterinary Services to provide efficient and effective programmes. Completion of risk analysis, planning, training, resource allocation, integration and coordination with government, private sector and non-governmental stakeholders and exercising the plan before a disaster event are critical to success. Prioritising risk reduction is vital for successfully responding to and dealing with future disasters.’

Bio-threats present a grave danger to public health, animal health, the agricultural industry, and national economies. National Veterinary Services currently have a wide range of authorities, capabilities, capacities and experience. OIE is uniquely positioned to support strengthening of National Veterinary Services in their animal-directed bio-threat reduction programmes to protect national economies, trade, human and animal health, and the environment.
Animal disease as a weapon: a short history

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The views expressed in this article are solely the responsibility of the author(s). The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by the OIE in preference to others of a similar nature that are not mentioned.

Keywords
Animal disease – Anthrax – Biological weapon – Cold War – Glanders – World War I – World War II.

Introduction
Animals are an important source of nutrition. They have also played (and in some parts of the world, continue to play) an important role in logistics and transport. Animals are closely woven into the fabric of our societies. Their widespread illness or death can have economic, health, socio-political and military consequences. Targeting them with weapons can damage the stability of a country. As a result, both state and non-state actors have acquired and used biological weapons to target animals. This paper provides an overview of four offensive weapons programmes run by states and looks at selected examples of similar efforts by other actors [1, 2, 3, 4].

German anti-animal biological weapons during World War I
This programme targeted animals only and was the first comprehensive effort to weaponise disease following an understanding of germ theory.

It targeted animals used for military logistics, war fighting and as part of the food supply, including horses, donkeys, mules, cattle and reindeer [1].

There is a well-documented history of the widespread use of these weapons. Germany used biological weapons to attack animals in five countries across three continents. Attacks were carried out in Argentina, Norway, Romania, Spain, and the United States [1].

In some cases clandestine forward production facilities were established in target countries. For example, a laboratory in the basement of a house in Washington D.C. produced the agents used in attacks in the...
United States. In other cases, the agent was produced in scientific institutes in Germany and shipped internationally. Germany made use of spies, diplomatic pouches and even submarines to deliver agents [1].

This programme focused on a limited number of diseases, namely glanders and anthrax. It deployed very basic delivery devices. Surviving documentation describes a brush being used to spread agent onto the noses of animals in the United States and sugar cubes with capillary tubes laced with agent being seized in Scandinavia [1].

The efficacy of the programme has been disputed. Whilst records show that biological agents were used, there seems little evidence that significant numbers of animals were sickened or died [1].

**United Kingdom anti-animal biological weapons during World War II**

The United Kingdom (UK) developed both strategic and sabotage-based biological weapons targeting animals. The strategic weapon (code-named Operation Vegetarian) was intended to retaliate following the use of suspected German foot and mouth disease (FMD)-based weapons (of which there is little evidence) [5].

The UK produced five million anthrax-laced cattle cakes in less than two years. They were to be distributed over German agricultural land using the flare chutes of long-range bombers. A London-based soap manufacturer produced the empty cattle cakes. Specialist facilities at the chemical and biological warfare establishment at Porton Down grew *Bacillus anthracis* in converted milk churns. The agent was then processed and the cattle cakes filled. Most of the cakes were destroyed soon after the end of hostilities, and the remainder destroyed in 1972 [1].

Anthrax was chosen, as those tasked with developing the weapons were already familiar with it. Contemporaneous documents suggest that FMD had been seen as a better candidate but key research and capacity to work with the agent were missing [5].

After the end of World War II and as the science of virology matured the UK refocused on the causative agents of FMD [2] and rinderpest [5]. Research was also carried out with Newcastle disease and fowl plague [5].

Focus shifted towards sabotage weapons – to instigate disease outbreaks without clear indicators that an attack had taken place, or of the originator. Key biological weapons-related facilities were transferred from the War Office to the Ministry of Agriculture and specific resources were provided to continue both offensive and defensive work. Interest in these weapons waned in 1950s and offensive activities were abandoned all together in 1956 [5].

**United States anti-animal biological weapons during the Cold War**

The United States of America (US), like several other countries, continued to pursue biological weapons targeting animals after the end of World War II. Their efforts focused on developing strategic weapons to attack Soviet livestock. Specifically, the US Air Force requested weapons to target cattle, horses and swine [2].

Between 1952 and 1954 the US Chemical Corps ran a dedicated facility to research and develop anti-animal biological weapons. Known at the time as Fort Terry, it became known as Plum Island following its transfer to the Department of Agriculture in 1954 [2].

Anti-animal components were also present in the broader biological weapons programme. For example, there were veterinary and crop sections at Fort Detrick, the main US biological weapons development
facility. Anti-animal elements were also part of international research and development agreements with the UK and Canada on biological weapons [2].

The US worked to weaponise six diseases split across three schedules:

− Schedule 1 included the causative agents of FMD and rinderpest;
− Schedule 2 included the causative agents of classical swine fever, Newcastle disease, and fowl plague;
− Schedule 3 was the causative agent of African swine fever [2].

At least four types of delivery device were produced:

− spray tanks to deliver the causative agents of classical swine fever and Newcastle disease;
− balloon bombs for use as a strategic weapon with multiple agents;
− a feather bomb (converted from a leaflet dispersal device) designed to deliver multiple agents; and
− a cluster bomb, still under development during the active phases of the anti-animal programme [2].

By 1957, the US had at least two weapons tested and ready. Efforts to develop strategic weapons were abandoned at around this time. Some work on sabotage weapons may have continued until the US unilaterally rejected biological weapons in 1969 [2].

Analysis reveals the existence of at least [5]:

− two research and development facilities – the Scientific Research Agricultural Institute at Gvardeyskiy in Kazakhstan, and the Scientific Research Institute for Animal Protection at Vladimir in Russia,
− one production facility – an animal vaccine facility at Pokrov in Russia, and
− two test sites – the Scientific Research Agricultural Institute at Gvardeyskiy in Kazakhstan, and VECTOR (the State Research Centre for Virology and Biotechnology) at Novosibirsk in Siberia, Russia.

There have also been allegations that some of these weapons were used against the horses of the Mujahidin in Afghanistan [5].

USSR anti-animal biological weapons during the Cold War

Less is known about Soviet biological weapons activities targeting crops and animals than those targeting humans. Academic histories record a dedicated programme, code-named Ecology, run by the Ministry of Agriculture. It is reputed to have employed around 10,000 people and applied genetic engineering techniques to enhance the ability of pathogens, including to increase virulence, circumvent or defeat defences (such as vaccines, antibiotics, and detection technologies) as well as to produce novel genetic constructs that cause different symptoms.

The Union of Soviet Socialist Republics (USSR) is believed to have worked on a wide range of diseases to target pigs, cows, fowl, goats and sheep, including the causative agents for: African swine fever, Aujeszky’s disease, bluetongue, classical swine fever, FMD, fowl pox, goat pox, Newcastle disease, ornithosis, psittacosis, rinderpest, and sheep pox [5].

Non-state actors and anti-animal biological weapons

Non-state actors have also acquired and used biological weapons to target animals. A 2006 study based on the Weapons of Mass Destruction (WMD) Terrorism Database of the Middlebury Institute of International Studies at Monterey (MIIS) identified only 25 out of
852 incidents targeting plants or animals. Only 4 resulted in animal deaths [2].

A review of similar online databases for this paper produced similar results. As of 29 April 2015, the RAND Database of Worldwide Terrorism Incidents (RDWTI) contained only 13 incidents involving a biological weapon out of 40,126 records [7]. None targeted animals. A search of the University of Maryland Global Terrorism Database (GTD) conducted the same day revealed 35 biological weapon-related incidents out of 125,087 records [8]. None targeted animals but one was carried out by animal rights activists.

Motivations behind the non-state use of these weapons differ:
- They have been used as part of open hostilities. For example, in 1952 in Kenya, the Mau Mau used extract from African milk bush\(^1\) to poison 33 cattle, killing 8, as part of their efforts to undermine colonial rule [2].
- On other occasions, these weapons have been used with more benign aims. For example, in 1997 in New Zealand, farmers smuggled a pathogen into the country and used it an attempt to control rabbit populations [2].
- There are also allegations of attacks on economic grounds. For example in 2000, New Scientist reported a Brazilian Minister of State asserting that an FMD outbreak in south of country had been started deliberately as economic sabotage [2].

**Conclusion**

Biological weapons to target animals have been developed and used by both state and non-state actors for a variety of reasons. Significant capabilities can be compiled using low technology approaches and good laboratory practice. More sophisticated approaches have also been attempted. To date, efforts to acquire these weapons have been infrequent; their use is even scarcer.

**References**


\(^1\) A plant in the Euphorbiaceae family
The Bulletin, first official OIE compilation

The first issue of the Bulletin sees the light of day, less than three years after the creation of the OIE. The OIE’s oldest official publication, it enables the exchange of information with Member Countries, players in animal production and health around the world and other stakeholders.

The only publication of the OIE, this periodical gathered together a large amount of information on different subjects, which were multiplying at the same rate as the Organisation was developing: epidemiological and regulatory information, scientific articles, reports of activities (General Sessions and international conferences), official documents, agreements of cooperation, etc.

Evolution of the OIE Bulletin

As the content of the Bulletin became ever more diverse and informative, it quickly became necessary to extend the range of OIE publications to disseminate increasingly specific information on particular topics more effectively, to a wide range of readers. This evolution also eventuated, over time, in the modernisation of the Bulletin. It gained in liveliness and illustration and its goal today is to make the life of the Organisation, its many activities and its value to the international community more well known. It constitutes ‘the voice of the OIE’ around the world, with four issues per year and publication in the three official languages of the OIE: English, Spanish and French.

Since the creation of the OIE more than 90 years ago, the range of its publications has not stopped growing or diversifying. Today, OIE publications constitute a major source of documentation for the international scientific community concerned with animals and support the progress of veterinary medicine worldwide. They cover every aspect of animal well-being and health, as well as veterinary public health at the global level.
A huge range of publications

In this way, new publications have gradually extended the range of works published by the Organisation, covering the four development axes of the OIE: scientific EXPERTISE, STANDARDS, TRANSPARENCY and SOLIDARITY. Examples are given below.

In addition to the intergovernmental standards of the OIE, numerous titles are published each year, including periodicals, important monographs and proceedings of international conferences. Works edited or coedited by the OIE are available in English, Spanish and French, and sometimes in Russian, Chinese and Arabic.

**EXPERTISE: To collect, analyse and disseminate global scientific veterinary information**

*Scientific and Technical Review*

First published in 1959.
Three issues per year.

The first two annual issues of the *Review* disseminate in-depth studies reflecting the latest scientific and technical advances in animal health, veterinary public health, food safety and animal welfare in the world, while also placing these topics in the context of the practical problems connected to these areas. The articles are written by the world’s top experts.

The pages of the third, plurithematic, issue, are open to the spontaneous submission of articles from authors worldwide.

To order a publication from the online bookshop: www.oie.int/boutique

**Thematic works**

These works provide an in-depth understanding of subjects of particular importance to the OIE, for example:

- *Guide to Aquatic Animal Health Surveillance*
- *Guide to Territorial Animal Health Surveillance*
- *Atlas of Transboundary Animal Diseases*
- *Camel Infectious Disorders*
- *Bee health and veterinary*...
Joint publications
Works produced in collaboration with OIE partners, for example:

- Manual of Procedures for Wildlife Disease Risk Analysis
- Guidelines for the surveillance, management, prevention and control of foot-and-mouth disease
- Bluetongue in Northern Europe

Technical series
Information on diseases or other subjects of particular interest to the scientific community:

- Scientific assessment and management of animal pain
- Qualitative risk assessment of the spread of foot-and-mouth disease by international trade in deboned beef

History books
Historical background on one or more diseases:

- History of the surveillance and control of transmissible animal diseases
- Historical perspective of Bluetongue in Europe and the Mediterranean Basin

Proceedings and compendiums
Presentations given during international conferences organised by the OIE:

- OIE Global Reference Laboratory for Naturally Occurring Foot-and-Mouth Disease
- OIE Global Conference on Foot-and-Mouth Disease
- Towards Sustainable Presence of the World
Within the framework of the PVS Pathway, the OIE develops and publishes guidelines and recommendations for Veterinary Services, laboratories and veterinary educational establishments, as well as veterinary statutory bodies.

**STANDARDS:**

- To improve animal health and welfare, as well as veterinary public health worldwide
- To guarantee the animal health safety of international trade for the international exchange of animals and their products
- To harmonise surveillance and control methods for major diseases
- To guarantee the animal health safety of international trade for the international exchange of animals and their products
- To harmonise surveillance and control methods for major diseases

**SOLIDARITY:**

- To develop international solidarity in order to better control animal diseases in the world
- To improve animal health and welfare, as well as veterinary public health worldwide
- To develop international solidarity in order to better control animal diseases in the world
- To improve animal health and welfare, as well as veterinary public health worldwide
TRANSPARENCY: To share, in real time, scientific information of quality on the global animal disease situation worldwide

1959: Animal health statistics
1985: World Animal Health

Follow-up Treatment

Twinning programmes
Assistance tools

Veterinary Legislation Support Programme
PVS Laboratory Tool

Interface with the World Animal Health Information Database (WAHID)

Real-time disease alerts

Latest disease alerts
14.08.15: Low pathogenic avian influenza (poultry) in Mexico

Latest news on animal diseases
Proceedings of the FAO/OIE Global Conference on Foot and Mouth Disease Control 
held in Bangkok, Thailand, from 27 to 29 June 2012

More than 500 participants attended the FAO/OIE Global Conference on Foot and Mouth Disease Control, including Chief Veterinary Officers from more than 100 countries, representatives of international and regional organisations, donor agencies, non-governmental organisations, the pharmaceutical industry and agricultural producer organisations. Ministers and other decision-makers also took part.

The proceedings of this conference contain all of the oral presentations on a vast variety of technical and scientific issues, in addition to a presentation of the Global Foot and Mouth Disease Control Strategy, the tools and methods that it will employ and the gaps and needs that should be addressed to achieve sustainable progress towards global control of FMD under OIE and FAO guidance.

Guide to Terrestrial Animal Health Surveillance

The purpose of surveillance is to provide timely and relevant information to allow early warning and inform policy makers for rapid response to reduce the spread and mitigate the impact of disease.

This practical handbook about surveillance is intended to be used mainly by Veterinary Services or other Competent Authorities, their staff and experts as a tool for strengthening the design, implementation and evaluation of surveillance systems for diseases of relevance for terrestrial animals in their country.

The book reflects the contribution of experts in surveillance methodology from across the world. Recognising the dynamic nature of animal health and taking into consideration the differences between OIE Member Countries and the diversity of their animal husbandry systems, this guide presents a flexible framework for integrating surveillance approaches that meet both national and international needs and that should remain relevant as surveillance evolves to embrace new challenges and opportunities.

Veterinary Services complying with OIE standards on quality are a cornerstone for effective passive and active surveillance activities, as well as efficient public–private partnerships between official and private veterinarians and animal owners, hunters and rangers in conservation areas.
Biological disasters of animal origin. The role and preparedness of veterinary and public health services

_M. Hugh-Jones_

Since October 2001 the possibility of intended disease outbreaks has been put forward repeatedly in many countries. The history of such events and their impacts are explored and may surprise many by what is possible and yet the uncertainty of the risk. At the same time we can be sure that the ‘old’ diseases will continue to occur. In our global economy, what happens in one corner of the world can threaten us all, and sooner rather than later. The events of the present H5N1 avian influenza pandemic remind us that we do have to be concerned with the threats imbedded in global trade but also with migratory birds ignorant of international boundaries and regulations.

It is the efficiency with which we plan for and confront traditional and emerging disease outbreaks that will predict our ability and confidence in tackling intentional outbreaks if, when, and where they occur. The cost of disease increases even as the incidence may decrease. And as the health and productivity of livestock have increased, the more we depend on a veterinary corps with decreasing hands-on experience in handling epidemics. This means that planning and training must depend on valid models. To prevent public panic, communications must be transparent. Laboratory support must be able to respond to surge demands as well as forensic investigations. These and other crucial dimensions such as compliance of Veterinary Services with OIE standards, early detection and rapid response to outbreaks – herd registration, rapid field diagnostics and data entry, inter-agency coordination, to take but a few – of where we must go are covered by recognised experts in this publication.
Some of our regular Bulletin readers may wonder, didn’t Dr Ishibashi leave the OIE? Yes, she did, as reported in Bulletin no. 2014-4. But now Dr Tomoko Ishibashi, former Deputy Regional Representative for Asia and the Pacific, is back at OIE Headquarters as Senior Manager, Standards Development and Horizontal Management Framework, in the International Trade Department, working partly within the Department and partly on cross-departmental matters.

A veterinarian with experience not only at the Regional Representation in her native Japan, but also at OIE Headquarters in Paris (in both the International Trade Department and the Scientific and Technical Department), Dr Ishibashi will be responsible for ensuring smooth harmonisation among the OIE’s various standard-development activities. Additionally, and in collaboration with other technical departments, she will take a leadership role in implementing a consistent approach to establishing technically sound content for OIE activities, including Focal Point Seminars and communication materials, and also to working with outside partner organisations.

We are very pleased to welcome Dr Ishibashi back to this newly established post.

The Scientific and Technical Department is pleased to welcome Dr Maria Luisa Danzetta from the Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise ‘G. Caporale’ in Teramo, Italy, as a veterinary epidemiologist. Dr Danzetta joined us on 15 June 2015 and her initial duties during her assignment will be to support the activities of the team in charge of the recognition of countries’ animal disease status.

Dr Danzetta brings a particular professional interest in vector-borne diseases and her experience in the development of new forecasting tools for the prevention and spread of emerging viral diseases.

She obtained her Doctorate in Veterinary Medicine in 2009 from the Faculty of Veterinary Medicine at the University of Perugia; a Master’s degree in International Veterinary Cooperation in 2011 from the University of Padua; and a further degree specialising in infectious diseases from the University of Bari Aldo Moro in 2014.
Discover the online version of the OIE Annual Report 2014

The OIE is making publicly available on its website the 2014 edition of its Annual Report, providing an opportunity to look back over the events that marked the past year and to relive some aspects through videos, infographics, questions/answers and other online media.

Punctuated by numerous activities and the advances made with projects undertaken by the OIE, the year 2014 was also the occasion to celebrate the 90th anniversary of the Organisation.

The Annual Report looks back at the key events of the past nine decades devoted to animal health and welfare, under the heading of the OIE’s four areas of action: standards, transparency, expertise and international solidarity.

This illustrated Annual Report provides a useful adjunct to the highly detailed “institutional” reports published each year for Member Countries.

Access the report online: www.oie.int/RA2014/EN

The OIE Annual Report is also available in hard copy and the electronic version can be downloaded in PDF format:


The OIE Communication Unit hopes you enjoy reading it!
Activities of the Communication Unit

World Health Day 2015: the OIE joins in the celebrations

This year’s event, which was held on 7 April 2015, focused on the importance of food safety.

OIE Director General, Dr Bernard Vallat, attended World Health Day at Rungis International Market, near Paris, France, alongside Dr Margaret Chan, Director General of the World Health Organization (WHO), and representatives of the Food and Agriculture Organization of the United Nations (FAO) and the French Ministries of Health and Agriculture.

World Health Day gives WHO an opportunity to promote future global, regional and national action to ensure food safety and access to a plentiful and balanced food supply for everyone.

In the context of the global food chain and the growing demand for animal protein, food safety is both a challenge and a shared responsibility, which the OIE, on behalf of its Member Countries, takes extremely seriously. To meet the ever-increasing demand for milk, eggs and meat and to guarantee their safety, the first requirement is to control pathogens in animals on the farm. Eliminating or controlling food hazards at the source has proved more effective than relying solely on checking the finished product.

The theme for World Health Day 2015, ‘Food safety’, provided the perfect opportunity to emphasise the importance of animal health and public health services working together at the national level to ensure food safety throughout the food chain. This could not be achieved without excellent collaboration between international organisations such as the Codex Alimentarius Commission and OIE in preparing intergovernmental sanitary standards.

OIE fact sheet on food safety:
www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/Fact_sheets/FOOD_EN.pdf

OIE portal on food safety:

Video on the role of veterinarians in food safety (OIE/European Commission)
www.youtube.com/watch?v=DrVB2vcktk8

World Health Day 2015 – Food safety (WHO website):
www.who.int/campaigns/world-health-day/2015/en/

The Director General of the OIE, Bernard Vallat (centre), accompanied the WHO Director General, Margaret Chan (centre), and the representative from FAO, Berhe Tekola (left), on a visit to the ‘world’s biggest market’. The Chief Executive Officer of Rungis International Market, Stéphane Layani (right), was their guide at the meat pavilion.
Activities of the Scientific and Technical Department
Summaries of the OIE Specialist Commission,
Working Group and Ad hoc Group meetings

April to June 2015

Ad hoc Groups

Prioritisation of Diseases for which Vaccines could Reduce Antimicrobial Use in Animals

OIE Headquarters, Paris, 21–23 April 2015

Reducing the prevalence of infections is one of the potential methods for reducing the use of antimicrobial agents around the world. In view of this, and as part of its contribution to global action to address antimicrobial resistance, the OIE convened an Ad hoc Group on Prioritisation of Diseases for which Vaccines could Reduce Antimicrobial Use in Animals. The Group was charged with identifying those animal diseases which could be addressed by the availability and use of vaccines rather than by employing antimicrobial agents, and also with recommending potential targeted research programmes to develop new and improved vaccines.

The Group discussed diseases of pigs, poultry and fish, as a first step, and considered the drivers of antimicrobial use (specifically, antibiotic use) in these animals. When estimating antibiotic use in terrestrial animals, the Group took a syndromic approach (i.e. which clinical signs or syndromes are being treated). For aquatic animals, given the large number of farmed fish, the Group considered actual and projected production numbers.

The Group agreed on the key diseases, including some viral diseases, that were driving antibiotic use in the animals under consideration, and identified areas for research where investment could lead to new or improved vaccines, with the potential to reduce antibiotic use in these animals. These conclusions are presented in the report as tables. The Group also highlighted additional key considerations relevant to the debate in the text of the report.

The Group’s report was submitted to the Scientific Commission for Animal Diseases for consideration at the September 2015 meeting.

Vaccine Banks

OIE Headquarters, Paris, 3–5 June 2015

The Group met to consider the comments received from OIE Member Countries and from invited reviewers on the draft revised Chapter 1.1.10. of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. These comments were extensive and required some coordination.

The Group reviewed all these comments, as well as additional factors highlighted by the Director General, Bernard Vallat. The Group then proposed a revised text for the draft chapter in light of the comments received.

The report of the Group was submitted to the Biological Standards Commission for consideration at the September 2015 meeting.

Porcine Reproductive and Respiratory Syndrome (PRRS)


The Group met with the aim of addressing Member Countries’ comments on the draft PRRS chapter that was initially circulated by the Terrestrial Animal Health Standards Commission (Code Commission) in 2014. The newly elected presidents of the Code Commission and the Scientific Commission for Animal Diseases also participated in this discussion. The experts thoroughly reviewed and considered all the comments provided by Member Countries and made proposed text revisions to the chapter accordingly. The report of the meeting and the proposed amendments to the draft chapter will be assessed by the relevant Specialist Commissions during their September 2015 meeting, with the goal of presenting the revised version for adoption by the World Assembly of Delegates in the near future.
Activities of the International Trade Department
Summaries of the OIE Specialist Commission,
Working Group and Ad hoc Group meetings
April to June 2015

Ad hoc Groups

Welfare of Working Equids

The Ad hoc Group met the week before the OIE General Session. The main focus of its work was an analysis of Member Country comments on the draft new chapter 7.X ‘Welfare of Working Equids’ circulated with the report of the September 2014 meeting of the Code Commission.

The Group clarified a number of points, simplified the text and removed excessive detail in response to Member Countries’ comments.

The report of the Ad hoc Group and the reviewed draft chapter will be considered by the Code Commission at its September 2015 meeting.

Disinfection of Aquaculture Establishments

The Ad hoc Group on Disinfection of Aquaculture Establishments finalised work on the revised draft of Chapter 4.3., ‘Disinfection of aquaculture establishments and equipment’, for the Aquatic Animal Health Code. Work was originally begun on this chapter during the Group’s first meeting in August 2014.

The revised Chapter 4.3. includes recommendations for disinfection procedures used during routine biosecurity in aquaculture establishments, as well as in emergency responses. It also provides guidance on general principles for planning and implementing disinfection.

The report of the Ad hoc Group will be presented at the October 2015 meeting of the Aquatic Animals Commission.

Working Groups

Animal Welfare
OIE Headquarters, Paris, 2–4 June 2015

The OIE Animal Welfare Working Group (AWWG) held its 14th meeting from 2 to 4 June 2015 at OIE Headquarters in Paris.

The AWWG honoured the memory of Dr Angus Campbell David Bayvel (in memoriam), former Chair of the AWWG and one of the pillars of OIE animal welfare developments.

In accordance with the rotational system of representation for industry members, this year a representative from the International Egg Commission took part as the full industry member of the Group.

Representatives from the OIE Animal Welfare Collaborating Centres (CCs) joined the AWWG via video conference to discuss a proposal to develop a network of Animal Welfare Collaborating Centres. This proposal will be presented to the Code Commission for consideration at its September 2015 meeting. They also gave brief summaries of their activities during the period 2014–2015. The CC annual reports are available on the OIE website at: www.oie.int/en/our-scientific-expertise/collaborating-centres/annual-reports/

The Working Group also advanced the proposed OIE Global Animal Welfare Strategy, which is designed to align with the Sixth OIE Strategic Plan 2016–2020, adopted at the 83rd OIE General Session and the ongoing initiatives of the Regional Animal Welfare Strategies.

Other important topics discussed included the development of a draft chapter on animal welfare and pig production systems as the next priority for the OIE. The AWWG also discussed the need for continuing support for the effective implementation of OIE animal welfare standards, and the fourth OIE Global Conference on Animal Welfare to be held in Mexico in 2016.
Ad hoc Group

Notification of Animal Diseases and Pathogenic Agents

OIE Headquarters, Paris, 6–8 January 2015

The OIE Ad hoc Group on Notification of Animal Diseases and Pathogenic Agents met at the OIE Headquarters from 6 to 8 January 2015. The members of the Group comprised:

− experts on disease notification, from the Member Countries of five continents;
− members of the three OIE Commissions – the Terrestrial Animal Health Standards and Aquatic Animal Health Standards Commissions, and the Scientific Commission for Animal Diseases –, attending as observers;
− OIE officers from the Scientific and Technical Department, International Trade Department and the World Animal Health Information and Analysis Department.

This Group was convened to assist the OIE in examining and evaluating criteria for the inclusion of diseases, infections and infestations in the OIE List; assessing the need for further definition of the disease notification obligations of Member Countries for emerging diseases; modifying reporting obligations when an emerging disease becomes endemic; analysing new emerging diseases, such as Ebola; and, in addition, considering the removal of reports of non-OIE-listed diseases in Member Countries’ annual reports.

One of the main objectives was to simplify the criteria for listing diseases, for the benefit of Members and to facilitate disease reporting. The Group also reviewed and revised the existing texts:

− Chapter 1.1. of the Terrestrial Animal Health Code: Notification of diseases, infections and infestations, and provision of epidemiological information;
− Chapter 1.1. of the Aquatic Animal Health Code: Notification of diseases, and provision of epidemiological information;
− Chapter 1.2. of the Terrestrial Animal Health Code: Criteria for the inclusion of diseases, infections and infestations in the OIE list;
− Chapter 1.2. of the Aquatic Animal Health Code: Criteria for listing aquatic animal diseases.

As for Ebola virus disease, the Group stated that listing this disease would not help in facilitating appropriate action to prevent the transboundary spread of the disease but that Member Countries should nonetheless be encouraged to report it.

The Group also considered deleting reports of non-OIE-listed diseases from Member Countries’ annual animal health reports (Article 1.1.3., Point 4, of the Terrestrial Animal Health Code) and replacing them by information on emerging diseases that had been declared endemic (Article 1.1.4. of the Terrestrial Animal Health Code). The Group agreed that the information requested on non-OIE-listed diseases in annual reports is not supported by Point 4 of Article 1.1.3. and it was no longer appropriate to include these diseases in WAHIS. The Group suggested that the WAHIS form be changed to reflect this.

The Ad hoc Group report was presented at the meetings of all three Specialist Commissions.
Arrival

OIE Regional Representation for Asia and the Pacific

Batsukh Basan

Dr Batsukh Basan joined the OIE Regional Representation for Asia and the Pacific (OIE–RRAP) as a Regional Project Coordinator on 3 March 2015.

He studied at the Veterinary Medicine and Biotechnology School at the State University of Agriculture of Mongolia, where he graduated with a Bachelor’s degree in Veterinary Medicine (BVMS) in 2006. He then joined a non-governmental organisation, the Veterinary Education and Training Network (V.E.T.Net), which conducts continuous education for rural veterinarians, and where he worked as a project coordinator and veterinarian for three years.

Dr Basan also studied at the School of Public Affairs and Management of the Academy of Management, in the Implementing Agency of the Government of Mongolia, and graduated with a Diploma in Public Administration in 2009.

Departures

OIE Regional Representation for Asia and the Pacific

Tikiri Priyantha Wijayathilaka

Dr Tikiri Priyantha Wijayathilaka successfully completed his assignment as a Regional Project Coordinator at the OIE Regional Representation for Asia and the Pacific (OIE–RRAP) on 31 March 2015.

The OIE PVS Pathway:
www.oie.int/en/support-to-oie-members/pvs-pathway/
During his two-year tenure, Dr Wijayathilaka was involved in developing and implementing the activities of the OIE/Japan Trust Fund Project for Controlling Zoonoses in Asia under the One Health concept. His work included activities for the ‘Strengthening Rabies Control in Asia’ programme, and being designated a Focal Person for WAHIS for Asia and the Pacific, supporting OIE National Focal Points for Animal Disease Notification in the region.

In April 2015, he returned to the National Veterinary Service of Sri Lanka, where he once again took up his former post as a veterinary officer.

Hnin Thidar Myint

After successfully completing four years of service at the OIE Regional Representation for Asia and the Pacific (OIE–RRAP), Dr Hnin Thidar Myint left the Regional Representation on 9 May 2015 to return to the Livestock Breeding and Veterinary Department of the Ministry of Livestock, Fisheries and Rural Development in Myanmar.

Dr Hnin Thidar Myint first joined the OIE–RRAP on 10 May 2011 as a Regional Veterinary Officer and, since 2013, has worked as a Regional Project Coordinator.

During her tenure, she was in charge of communication, veterinary products and aquatic animal health, and became a Regional Coordinator for the OIE/Japan Trust Fund Project for Controlling Zoonoses in Asia under the ‘One Health’ concept. She also represented the OIE at many important meetings throughout Asia and the Pacific. Her technical competence and work performance was a great asset for the OIE RRAP. Dr Hnin Thidar Myint contributed to transboundary animal disease prevention and control and the implementation of various OIE activities in the region. In addition, her participation in OIE meetings, training seminars and workshops have helped to promote networking at the national, regional and international levels.

Lushi Liu

Dr Lushi Liu left the OIE Regional Representation for Asia and the Pacific on 12 June 2015, after the successful completion of his 14-month secondment, and returned to the China Animal Health and Epidemiology Centre (CAHEC) at the Ministry of Agriculture of the People’s Republic of China (P.R. China).

Dr Liu joined the OIE in April 2014 to gain a fuller understanding of the OIE and enhance cooperation between P.R. China and the OIE. As a Secondment Officer, he assisted the staff of the office in organising regional GF–TADs meetings and implementing the OIE/Japan Trust Fund Project on Foot and Mouth Disease Control in Asia as well as the Project for Controlling Zoonoses in Asia. Some months later, he initiated the Swine Disease Control Project in Asia, in close collaboration with the Ministry of Agriculture of P.R. China.

Dr Liu also contributed his time and commitment to a Joint FAO/OIE Workshop on Swine Disease Control in Asia in November 2014, and to regional hands-on laboratory training for porcine reproductive and respiratory syndrome (PPRS) and other swine disease diagnoses in April 2015, all with a view to improving networking, information-sharing and capacity-building for the control of swine diseases in the Asian region.

1 GF–TADs: Global Framework for the Progressive Control of Transboundary Animal Diseases
Rift Valley fever: new options for trade, prevention and control

Djibouti, 21–23 April 2015

This inter-regional conference on Rift Valley fever (RVF) brought together government authorities from the Horn of Africa and the Middle East, representatives of regional and international organisations and many other stakeholders, to Djibouti, the heart of the livestock trade between these two regions, for three days of discussion, networking and group sessions.

Attended by 18 countries and 70 participants, the conference was held under the auspices of the Global Framework for Transboundary Animal Diseases (GF–TADs), since RVF is one of the Framework’s priority diseases for Africa and the Middle East.

The conference was held in Djibouti, and was officially opened by the Djibouti Minister of Agriculture, Livestock, Water and Fisheries, Mr Mohamed Ahmed Awaleh. Other high-profile guests included the Somali Minister of Livestock, Forestry and Range, Mr Hussein Said; the Director of the Agriculture and Environment Division of the Inter-Governmental Authority on Development (IGAD), Mr Mohamed Moussa; the FAO Resident Representative, Dr Emmanuelle Guerne-Bleich; the FAO Regional Representative for the Near East and North Africa, Dr Markos Tibbo; the Director of AU–IBAR1, Prof. Ahmed El-Sawalhy; and the Deputy Director of AU–PANVAC2, Dr Charles Bodjo.

This gathering was a follow-up to previous RVF meetings, particularly the two most recent, held in Rome in 2014 and Mombasa in 2012. Its main objectives were to highlight recommendations for trade with RVF-affected or at-risk countries, based on the new OIE Terrestrial Animal Health Code, Chapter 8.13., and to underline the progress being made in vaccine and diagnostic test development.

The meeting was organised around five formal thematic sessions, interspersed with two working-group sessions and a visit to the Djibouti Livestock Export Quarantine Facility.

Formal presentations included a review of the epidemiology of the disease and the recommendations of previous meetings. The thematic sessions addressed the challenges of disease control, trade issues, prevention and early warning, and regional coordination.

During the working-group sessions, participants were given the opportunity to apply the articles of Chapter 8.13. of the Terrestrial Animal Health Code to case-study scenarios and to act out the outcomes of their discussions in mock trade negotiations.

Diagnostic tests presently available or under development for RVF were also subjects for discussion, as were the currently available vaccines and new vaccine candidates. It was noted that one significant barrier to the early detection of RVF is the escalating cost and dwindling availability of diagnostic tests. There have been promising results from research into new vaccines, such as ‘Clone 61’, and reverse genetic vaccines, such as ‘DDvax’ and NDV vectored vaccines, but disappointment was voiced over the fact that the ‘Clone 13’ vaccine has still not been registered in at-risk countries, except for South Africa.

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1 AU–IBAR: African Union – Interafrican Bureau for Animal Resources
2 AU–PANVAC: African Union – Pan-African Veterinary Vaccine Centre
3 NDV: Newcastle disease virus
The meeting concluded with key recommendations for building capacity to address probable RVF outbreaks in the region. In summary:

− given the extended period of eight years since the last outbreak, and the El Niño Southern Oscillation (ENSO) weather predictions, an outbreak of RVF is likely to occur within the next 18 months
− contingency plans and national action plans must therefore be developed or updated
− continuing projects in the region should support these initiatives
− vaccine development and commercialisation should be accelerated and AU–PANVAC should carry out quality control on all RVF vaccines
− vaccine banks should be established, preferably with the support of regional organisations, such as IGAD
− diagnostic tests and reagents need to become readily available and must be kept affordable
− countries are encouraged to incorporate the new Terrestrial Animal Health Code chapter on Risk Valley fever into their national legislation.

The Sub-Regional Meeting on Antimicrobial Resistance for OIE Delegates, National Focal Points for Veterinary Products, and the Ministries of Health from MERCOSUR was held in the city of Buenos Aires, Argentina, on 28 and 29 April 2015.

The meeting was organised by the OIE Regional Representation for the Americas, with the support of the National Agrifood Health and Quality Service (SENASA), the Argentinian Ministry of Agriculture, Livestock and Fisheries, and the Ministry of Health.

Resistance to antimicrobials is a global problem that cuts across many sectors. This is an issue that requires the ‘One Health’ approach, involving Veterinary Services, Public Health Agencies, and other stakeholders involved in the food production chain.

Participants included experts from OIE and WHO Headquarters, the Pan American Health Organisation (PAHO), OIE National Focal Points for Veterinary Products, and representatives from Ministries of Health in charge of national plans for antimicrobial resistance control from Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay and Venezuela.

Presentations covered the FAO/OIE/WHO Tripartite Alliance for ‘One Health’ and OIE activities in the field of antimicrobial resistance, as well as the WHO Global Action Plan and related activities. Also included were presentations on the development of the European surveillance model, experiences from the integrated antimicrobial resistance surveillance networks in the Americas (aspects of human health), and the Canadian

1 MERCOSUR: the Southern Common Market. A sub-regional bloc comprising Argentina, Brazil, Paraguay, Uruguay and Venezuela. Chile, Bolivia, Colombia, Ecuador and Peru are associate countries.
Integrated Antimicrobial Resistance Surveillance Program, which covers both the animal and human health sectors.

The Argentinian Strategy for the Control of Antimicrobial Resistance, developed jointly by the Ministry of Agriculture, through SENASA, and the Ministry of Health, was presented in detail, and provides the basis for an inter-Ministerial legal act which will soon be signed.

Participants took the opportunity to share their current national activities and future projects for the implementation of coordinated antimicrobial resistance surveillance and control plans. Group discussions were organised on promoting interaction between countries, regions and sub-regions, achieving useful outcomes for those who took part.

Under the leadership of the OIE, this meeting provided a starting point for the intersectorial communication required to tackle antimicrobial resistance, and raised awareness of this problem among both the animal and human health sectors. This is in line with the FAO/OIE/WHO Tripartite Agreement, which promotes the creation of national joint working groups, involving Veterinary and Human Health Services, as well as other relevant stakeholders, to develop national antimicrobial resistance and usage surveillance programmes, in accord with the OIE and WHO International Standards and Guidelines.
The 21st Meeting of the OIE Sub-Commission for Foot and Mouth Disease (FMD) Control in South-East Asia and China was held in Manila from 10 to 13 March 2015 and attended by over 90 representatives from this region and other parts of the world. They included delegates from SEACFMD Member Countries, representatives of key partners, and OIE staff from Paris Headquarters, the OIE Regional Representation for Asia and the Pacific (OIE RR–AP), and the OIE Sub-Regional Representation for South-East Asia (OIE SRR–SEA).

The meeting was opened by Dr Monique Eloit, Deputy Director General of the OIE, and Dr Davinio Catbagan, Assistant Secretary for Livestock of the Philippines Department of Agriculture. Dr Eloit highlighted the vital role of Veterinary Services in fighting FMD and other transboundary animal diseases, and thanked donors and countries for their support. Dr Catbagan emphasised the growing potential of the region’s livestock sectors, and the effects of FMD on productivity and subsequent progress. Dr Catbagan also urged Member Countries to explore ways of controlling and eradicating FMD in a sustainable manner, and welcomed participants to the Philippines.

Participants received an update on the global and regional FMD situation, as well as on the activities of the World Reference Laboratory for FMD. While the number of outbreaks reported in the region has increased, participants were reminded that, when interpreting these data, they should consider whether this is due to an actual increase in outbreaks or simply better reporting. Member Countries, with the assistance of partners, were requested to continue to submit samples to allow further guidance on the selection of vaccine strains.

Participants gave positive feedback on the debut screening of a video produced by the OIE SRR–SEA, with the assistance of prominent regional personalities in FMD prevention and control. The video emphasised the role of SEACFMD Member Countries and partners in fighting the disease. It was confirmed that SEACFMD Member Countries would be able to translate the video into their native languages.

In the subsequent sessions, representatives of SEACFMD Member Countries gave updates on their national FMD situation as well as information on activities being carried out, challenges encountered, and future plans and resources for FMD prevention and control. Key partners gave presentations on their activities and future plans related to FMD, with particular relevance to the SEACFMD Campaign. Discussions highlighted vaccination as a key tool for control, and the need

1 SEACFMD: South-East Asia and China Foot-and-Mouth Disease Campaign
to discuss and study virus characteristics, including strain selection and potency.

Countries were commended for an increase in bi- and tri-lateral discussions. Economic impact studies, including those conducted by Australia and New Zealand, were also discussed, and were put forward as models to be considered by Member Countries for their own studies. Participants discussed the importance of continued funding by the Australian Government (through the STANDZ Initiative) while other donors present at the meeting were requested to extend their funding to help achieve the goals of the SEACFMD Campaign.

Technical sessions on the second day included presentations on:
- a) proficiency testing
- b) FMD-related research
- c) vaccine matching and post-vaccination monitoring
- d) OIE Standards on FMD and endorsement of National Control Plans
- e) FMD control projects supported by the OIE in Myanmar and Laos, and
- f) the Philippines’ experience in achieving and maintaining freedom from FMD.

A session on risk mitigation strategies was conducted with discussion focusing on the need to engage industry and to consider social and cultural factors when formulating plans to lessen FMD risks.

The Strategic Framework for the next phase of the SEACFMD 2020 Roadmap was also presented. A manual accompanying major components of the Roadmap will be compiled to provide further guidance to Member Countries and partners. Participants received the Strategic Framework of the third edition of the Roadmap as well, with comments to be integrated by the SRR–SEA.

On the third day, after the OIE SRR–SEA presentation of action undertaken as part of the SEACFMD Campaign during the past year, National Coordinators and Observers reviewed key points and issues for SEACFMD and identified significant actions to be considered in the coming year. These include the need for a multi-disciplinary approach to analysis and intelligence-gathering and synthesis, and engagement with policy-makers from the top down and across the range of relevant government departments. The importance of contingency planning (particularly for FMD-free countries) and of ensuring that national FMD plans are consistent with the SEACFMD 2020 Roadmap were emphasised. After a presentation on the OIE Vaccine Banks for FMD and rabies, participants discussed the importance of vaccine selection. Relevant information on this topic will be included in the Global Guidelines for Post-Vaccination Monitoring, to be released later this year.

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2 STANDZ Initiative: regional initiative to Stop Transboundary Animal Diseases and Zoonoses

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To guide the SEACFMD Campaign’s work in the coming year, the meeting concluded with the following key recommendations, that:
- Member Countries endorse the Strategic Framework of the SEACFMD Roadmap
- all stakeholders and the OIE work together to continue the OIE FMD Vaccine Bank
- Directors General meet in mid-2015 to consider and make recommendations on the Final Report of the Upper Mekong Animal Movement Study
- countries be encouraged to request PVS follow-up evaluations and other missions where relevant
- high-level advocacy be pursued at the ASEAN and national levels and that private-sector engagement be recognised as essential for maintaining and improving FMD status.

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The South-East Asia and China Foot and Mouth Disease (SEACFMD) Campaign, including the latest edition of the SEACFMD 2020 Roadmap:
www.rr-asia.oie.int/activities/sub-regional-programme/stanz/seacfmd/
2nd FAO/OIE Sub-Regional Meeting of GF-TADs for ASEAN Member Countries

Chiang Mai, Thailand, 31 March 2015

In Bangkok, in 2014, the Eighth Regional Steering Committee Meeting of GF–TADs1 for Asia and the Pacific recommended that the FAO and OIE hold a joint Second Sub-Regional Meeting of GF–TADs for ASEAN2 Member Countries in Chiang Mai, Thailand, in the margin of the 23rd ASEAN Sectoral Working Group on Livestock Meeting. This GF–TADs meeting duly took place on 31 March 2015. (The First Sub-Regional Meeting had been held in Jakarta, Indonesia, from 7 to 8 December 2009.)

The objectives of the meeting were to:

a) update participants on GF–TADs work in ASEAN Member Countries

b) link the activities of regional specialised organisations to regional and global GF–TADs, and

c) identify any new items that should be considered for inclusion in the meeting’s recommendations.

Representatives from eight countries in the ASEAN region attended the meeting, and were briefed on regional and international developments by the Permanent Secretariat of the OIE Regional Representation for Asia and the Pacific. The FAO and OIE also presented an update of their respective activities related to transboundary animal diseases in the region.

Several Member Countries gave presentations on specific diseases and the recommendations from the Eighth Regional Steering Committee Meeting of GF–TADs for Asia and the Pacific were also discussed.

Among the key points raised by Member Countries were that:

- consideration should be given to including other swine diseases, such as porcine reproductive and respiratory syndrome and porcine epidemic diarrhoea, as well as bee diseases, in ASEAN’s priority disease list

- the possibility of establishing a rabies control and prevention network and rabies diagnosis reference centre in ASEAN should be explored

- the Highly Pathogenic Avian Influenza Task Force Meeting for ASEAN should be reconvened

- transboundary animal diseases research should be directed into areas such as baseline rabies information on dog ecology, economics, etc.

- laboratory staff training and the provision of reagents are needed for further capacity-building of Veterinary Services.

ASEAN will continue to discuss the revision of priority transboundary animal diseases for the sub-region and will raise this question at the next Regional Steering Committee Meeting of GF–TADs for Asia and the Pacific in 2016.

1 GF–TADs: FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases

2 ASEAN: Association of South-East Asian Nations
Regional Hands-on Laboratory Training Course on the Diagnosis of Porcine Reproductive and Respiratory Syndrome and Other Swine Diseases
Beijing, People’s Republic of China, 13–17 April 2015

The Regional Hands-on Laboratory Training Course on Porcine Reproductive and Respiratory Syndrome and Other Swine Disease Diagnosis was a follow-up activity to the Joint FAO/OIE Workshop on Swine Disease Control in Asia which was held in November 2014, also in Beijing. As recommended by the Workshop, the OIE Regional Representation for Asia and the Pacific (OIE RR-AP) initiated this training course in collaboration with the China Animal Disease Control Centre (CADC) and the OIE Reference Laboratory for PRRS. The objective was to provide the trainees with an opportunity to:

a) improve their skills in the laboratory diagnosis of porcine viral diseases;

b) increase understanding of the relevant OIE International Standards on veterinary laboratory diagnosis; and

c) share experiences and enhance cooperation among participating countries.

A total of 11 participants from nine OIE regional Member Countries – namely, Cambodia, Chinese Taipei, Indonesia, Laos, Mongolia, Myanmar, the Philippines, Thailand and Vietnam – participated in the five-day training course. Dr Zhongqiu Zhang, Chief Veterinary Officer of the People’s Republic of China, gave the introduction. More than 30 participants, including trainees, trainers and CADC staff, attended the opening ceremony.

Porcine reproductive and respiratory syndrome and classical swine fever are the most important porcine diseases in the participating OIE Member Countries (Table I), while porcine epidemic diarrhoea has been attracting more attention since 2013. Various constraints on laboratory diagnoses still exist, however, and these compromise the efforts to control these diseases.

Diagnostic procedures, including cell culture and passage, specimen preparation, virus isolation, fluorescent antibody test (FAT), immunoperoxidase monolayer assay (IPMA), reverse transcriptase polymerase chain reaction (RT-PCR), enzyme-linked immunosorbent assay (ELISA) and assessment of TCID50, were practised by the trainees themselves with demonstration and guidance. All tests were well done by all trainees.

In addition to the hands-on practice, various topics were discussed extensively. Participants refreshed their laboratory knowledge and exchanged experiences. The differentiation of infected and vaccinated animals (DIVA) strategy, analysis of results, proficiency testing and networking among laboratories were discussed or envisaged.

The Regional Hands-on Laboratory Training Course was successfully completed with the distribution of certificates by Dr Weisheng Chen, Director General of the CADC.

The OIE RR-AP appreciated the role of the CADC and will continue to collaborate with partners to find more opportunities to support Regional veterinary capacity building, especially for porcine disease control.

The training course was funded by voluntary contribution from the Government of the People’s Republic of China to the OIE World Animal Health and Welfare Fund.

Table I
Swine diseases of priority concern listed by participating OIE Member Countries

<table>
<thead>
<tr>
<th>Disease</th>
<th>No. of Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porcine reproductive and respiratory syndrome</td>
<td>9</td>
</tr>
<tr>
<td>Classical swine fever</td>
<td>8</td>
</tr>
<tr>
<td>Porcine epidemic diarrhoea</td>
<td>4</td>
</tr>
<tr>
<td>Porcine circovirus type 2</td>
<td>4</td>
</tr>
<tr>
<td>Foot and mouth disease</td>
<td>4</td>
</tr>
<tr>
<td>Influenza virus type A (H1N1)</td>
<td>2</td>
</tr>
<tr>
<td>Transmissible gastroenteritis</td>
<td>1</td>
</tr>
<tr>
<td>Pseudorabies virus (Aujeszky’s disease)</td>
<td>1</td>
</tr>
</tbody>
</table>
The 2015 Regional Rabies Scientific Conference, which took place in Wuhan, the People’s Republic of China, on 16 and 17 April 2015, was organised by the OIE, the China Preventive Medicine Association, the Chinese Association of Animal Science and Veterinary Medicine, and the China Working Dog Management Association.

The conference aimed to:
- pool highly relevant research findings on animal rabies in Asia
- bring together research scientists, policy-makers, and members of the Veterinary and Public Health Services who are implementing animal rabies control and prevention activities, including dog population control, based on OIE Standards, in their respective countries
- incorporate all the available scientific information into rabies elimination efforts in the region
- develop a regional research network to cooperate in rabies elimination, and
- consolidate the animal health sector contribution to rabies research and elimination in Asia, in preparation for the next Global Rabies Conference.

Over 350 participants attended this conference from all relevant sectors involved in rabies elimination, as a result of the strong multi-sectoral collaboration that already exists in China.

This annual scientific conference on rabies is well established in China. The Chinese organisers acknowledged the contribution of the OIE and showed their interest in expanding the conference by inviting other countries in the region, as well as the FAO–OIE–WHO Tripartite Alliance for ‘One Health’. Such an expansion would bring the conference into closer alignment with the ‘One Health’ approach.

During the two-day meeting, nine key points were thoroughly discussed:
- rabies control is a public good that needs an intersectoral ‘One Health’ approach with strategies based on international standards
- rabies control and elimination are feasible at the national and regional level
- challenges to rabies elimination in Asia still exist
- surveillance, including appropriate reporting, is a crucial point in any control and elimination programme, especially in the latter phase of rabies elimination
- a regional approach, with the support of countries and international organisations, is a key element in successful elimination
- progress has been demonstrated but needs to be continued and further expanded
- dog vaccination against rabies is the main pillar in rabies prevention and elimination
- dog population management is another pertinent area of work for rabies prevention and elimination, and
- laboratory proficiency is a key component required to support rabies elimination programmes.
2015 review of the ‘West Eurasia FMD Roadmap’

Since 2008, fourteen countries have been engaged in a regional initiative on foot and mouth disease (FMD) called the ‘West Eurasia FMD Roadmap’, with the goal of eliminating clinical FMD by 2025. For the past two years this initiative has been implemented under the auspices of GF-TADs1. The European Commission for the Control of Foot-and-Mouth Disease (EuFMD), which originally developed the initiative, remains strongly involved by providing expertise and technical support suitably adapted to the countries’ needs. Every year, countries measure the progress achieved using a now well established methodology that includes a self-evaluation based on a detailed checklist and then, at annual review meetings, a presentation of the national situation in plenary session and personalised meetings, country by country, with GF TADs FMD Working Group and EuFMD experts. The outcome of these analyses is then discussed and evaluated by the Regional Advisory Group, which assigns each country to a specific stage of the Progressive Control Pathway for Foot and Mouth Disease Control (PCP-FMD).

In line with the FAO/OIE Global Foot and Mouth Disease Strategy, these evaluations also take into account strengthening of the Veterinary Services and transparency of animal disease information. The reporting of animal diseases to the OIE is a precondition (and an obligation for countries2) for the success of this initiative, and this work is supported by a regional laboratory network (WELNET) and an epidemiological surveillance network (EPINET).

The 6th Annual FMD Roadmap Meeting for the countries of West Eurasia was held in Almaty, Kazakhstan, from 28 to 30 April 2015. All the countries of the sub-region except Iraq were present; Russia also attended the meeting as an observer. Key points at this year’s meeting were as follows:

a) the world situation, which has seen a rise in the number of FMD outbreaks;

b) in Europe, the reappearance of cases in Kyrgyzstan;

c) the substantial control efforts made by Kazakhstan, which in May 2015 obtained the official status for the northern zone of the country as an FMD zone where vaccination is not practised and is currently preparing a dossier for submission to the OIE in the near future to apply for recognition of the southern zone of the country as an FMD free zone where vaccination is practised. Kazakhstan thus clearly demonstrates that, with strong political commitment coupled with strengthening of the Veterinary Services, a country can progress along the PCP-FMD following a fast track procedure.

Sixth West Eurasia FMD Roadmap meeting (Almaty, April 2015)

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1 GF-TADs: FAO/OIE General Framework for the Progressive Control of Transboundary Diseases
2 In accordance with the provisions of Article 1.1.3. of the Terrestrial Animal Health Code, countries are required to notify any FMD outbreak or presence of the infection: ‘The detection of the aetiological agent of an OIE listed disease in an animal should be reported, even in the absence of clinical signs.’
The results of the Regional Advisory Group 2015 shown in Figures 1 and 2 (maps for 2014 and 2015) indicate that most of the countries are progressing in accordance with the scheduled timetable and that the 2025 target is still attainable. It should be noted that Iraq (absent) and Syria will be evaluated by the Regional Advisory Group for the Middle East FMD Roadmap, which is due to hold its next meeting before the end of 2015. These two countries nevertheless remain members of the West Eurasia initiative.

Partner countries in the initiative that are still at PCP-FMD Stage 1 should make a commitment to undertake an in-depth evaluation of their FMD situation as quickly as possible, to be in a position to initiate the appropriate control measures in a coordinated and consistent manner with those of the more advanced neighbouring countries. No country should remain at Stage 1 for more than three years as this would risk compromising the results of the FMD Roadmap already achieved for the West Eurasia region. All countries should prepare a national control plan for recognition by the OIE World Assembly.

The 2015 recommendations follow on from those of 2014 and urge countries to maintain their efforts, not only in terms of FMD control but also to strengthen their Veterinary Services; countries that have not undergone a PVS Evaluation of their Veterinary Services for more than five years are strongly encouraged to request the OIE for a PVS follow-up mission. Within the next six months, three countries will need to submit a robust Strategic Plan that takes into account the results of Stage 1 to be able to be maintained in Stage 2. Under the heading of new activities, the countries recommended:

a) harmonisation of vaccination campaigns between countries, wherever possible;

b) implementation of a mechanism or system for monitoring livestock prices, so that trade movements can be anticipated and the appropriate preventive measures taken;

c) establishment of a regional vaccine bank, which would present the advantage of proposing high quality vaccines complying with OIE biological standards and adapted to the strains detected in the region, and at a low cost and immediately available both for emergency situations and routine vaccinations. The regional vaccine banks already operational in Asia (OIE) or Europe could serve as a model. The recommendations also list the vaccines that should be used in 2015-2016, based on the strains currently circulating in the region.

Following the adoption in March 2015 of the Global Strategy for the Control and Eradication of PPR (peste des petits ruminants), which also provides for a sub-regional approach, it is envisaged that the FMD and the PPR roadmap meetings could in future be held jointly.

Kyrgyzstan offered to host the 7th Annual West Eurasia FMD Roadmap Meeting in 2016.
Appointment of permanent Delegates

11 June 2015
Myanmar
Dr Ye Tun Win
Chief Veterinary Officer, Director General, Livestock Breeding and Veterinary Department, Ministry of Livestock and Fisheries

24 June 2015
Egypt
Dr Ibrahim Mahrous Saleh Mohamed
Chairman of General Organization for Veterinary Services (GOVS), Ministry of Agriculture and Land Reclamation

24 June 2015
United Arab Emirates
Mr Abdellrahim Mohamed Abdullah AlHammadi
Undersecretary, Ministry of Environment and Water

25 June 2015
Armenia
Mr Hovhannes Mkrtchyan
Head, Veterinary Inspectorate, State Service for Food Safety, Ministry of Agriculture

25 June 2015
Indonesia
Prof. Dr Muladno
Director General, Livestock and Animal Health Services, Ministry of Agriculture

30 June 2015
Ukraine
Dr Oleksandr Verzykhovskiy
Deputy Head, State Veterinary and Phytosanitary Service of Ukraine, Ministry of Agrarian Policy and Food

24 June 2015
Libya
Dr Abdelghani Ahmed
Chairman of the Board of Directors (NCAH), Chief Veterinary Officer, National Centre for Animal Health (NCAH), Ministry of Agriculture, Animal & Marine Wealth

29 July 2015
Fiji
Mr Xavier Riyaz Khan
Executive Chairman, Biosecurity Authority of Fiji

3 August 2015
Nicaragua
Dr Willi Flores Diaz
Director, Salud Animal, Instituto de Protección y Sanidad Agropecuaria (IPSA)

27 August 2015
Chinese Taipei
Dr Tai-Hwa Shih
Chief Veterinary Officer, Deputy Director General, Bureau of Animal and Plant Health Inspection and Quarantine, Council of Agriculture, Executive Yuan, Ministry of Agriculture
The Intergovernmental Authority on Development (IGAD), a regional intergovernmental organisation of eight Eastern African countries (Djibouti, Eritrea, Ethiopia, Kenya, South Sudan, Sudan, Somalia and Uganda) created in 1986, with its headquarters located at Avenue Georges Clemenceau, P.O. Box 2653 Djibouti, Republic of Djibouti, represented by its Executive Secretary, H.E. Eng. Mahboub M. Maalim,
(hereinafter referred to as ‘IGAD’),

and

The World Organisation for animal Health (OIE), an intergovernmental organisation, created by the International Agreement for the creation of the Office International des Epizooties, done in Paris, 25 January 1924, with its headquarters located at 12 rue de Prony, 75017 Paris, France, represented by its Director General, Dr Bernard Vallat,
(hereinafter referred to as ‘OIE’),

NOW THEREFORE

the IGAD and the OIE (hereinafter referred to as ‘the Parties’) have agreed as follows:

Article 1 – Reciprocal information
1.1. The OIE and the IGAD will keep each other informed of its activities of mutual interest in relation to animal health in the IGAD region.
1.2. The OIE will forward to IGAD Secretariat and IGAD Member states its catalogue of available publications to enable it to request OIE publications on activities related to the work of IGAD in animal health management in the region.
1.3. IGAD Secretariat and IGAD Member states will benefit from the concessional rates offered by OIE in the same way as other organisations affiliated to it.
1.4. OIE and IGAD Secretariat will exchange documents on subjects of mutual interest in relation to the management of animal health in the IGAD region.

Article 2 – Consultation
2.1. The Parties will endeavour to develop further cooperation through both formal and informal consultations on issues of common interest.
2.2. Either Party will invite the other to participate as observer in its meetings where matters of mutual interest arise and will exchange reports in matters of animal health in the IGAD region, including sharing results of joint meetings.

Article 3 – Areas of cooperation
The Parties will cooperate in the following areas:

a) technical cooperation in animal health;
b) strengthening of the veterinary services in IGAD Member States and the region’s epidemiological surveillance networking;
c) dissemination of animal diseases information;
Agreement between the World Organisation for Animal Health (OIE) and the Inter-Governmental Authority on Development (IGAD) (contd)

Article 4 – Duration and validity

4.1. This agreement shall enter into force on the date of signature by both Parties and shall remain valid until termination.

4.2. Each Party may propose termination of this Agreement by giving the other Party three (3) months written notice of its intention to terminate this Agreement. The termination shall however not interfere with any ongoing activities.

Article 5 – Amendments

5.1. Any amendment to this Agreement shall be effected only on the basis of written mutual consent by the Parties.

5.2. Agreement on proposed amendments shall be reached through Exchange of Letters.

Article 6 – Dispute resolution

The parties hereto shall endeavour to resolve any dispute arising by mutual negotiations before resorting to any civil litigation.

IN WITNESS WHEREFORE,
the Parties have signed this Agreement.

Done in two original texts in the English language.
Paris, 15 November 2014

H.E. Eng. Mahboub M. Maalim  Dr Bernard Vallat
Executive Secretary  Director General
IGAD  OIE

Agreement between the World Organisation for Animal Health and the Inter-Governmental Authority on Development (IGAD) (contd)

d) promotion of the use of the International Animal Health Code and the standards for veterinary diagnostic tests and vaccines;

e) exchange of information and working programmes;

f) organisation of workshops, meetings and seminars on animal diseases intelligence and risk analysis methods;

g) organisation of workshops, meetings and seminars on the harmonisation procedures for registration and control of veterinary medicines and pesticides; and

h) elaboration of an annex of this Agreement which will deal with issues of coordinating common regional activities of IGAD and the OIE Regional Representation or Sub-Regional Representation within special programmes, implemented with the support of extra budgetary resources, such as:

– validation of the non-official information on animal diseases, and support to IGAD Member States for the official diseases notification, to facilitate incorporation in the OIE World Animal Health Information System;

– providing support to IGAD Member States in the preparation of the relevant applications for free status of specific diseases on national territories or particular zones, in order to facilitate regional and international market access for animals and animal products; and

– support to existing OIE Reference Laboratories and Collaborating Centres of Excellence in IGAD Member States and if possible official recognition of other new reference Laboratories, in order to sustain the scientific veterinary community to negotiate standard setting activities under World Trade Organization/Sanitary Phytosanitary (WTO/SPS) Agreement.
CONSIDERING the objectives of the World Organisation for Animal Health (‘OIE’), in particular
− to safeguard world trade by publishing science based health standards for international trade in terrestrial and aquatic animals and animal products
− to promote the competency and capacity of national Veterinary Services (including public and private sector components) and
− to provide veterinary public health assurances including on food of animal origin and to promote animal welfare through a science-based approach,

CONSIDERING the objectives of the World Organisation for Animal Health (‘OIE’), in particular
− to safeguard world trade by publishing science based health standards for international trade in terrestrial and aquatic animals and animal products
− to promote the competency and capacity of national Veterinary Services (including public and private sector components) and
− to provide veterinary public health assurances including on food of animal origin and to promote animal welfare through a science-based approach,

CONSIDERING the mission of the World Veterinary Association (‘WVA’) − to assure and promote animal health, animal welfare and public health globally, through developing and advancing veterinary medicine, the veterinary profession as well as public and private Veterinary Services,

CONSIDERING the agreement between the WVA and the OIE, adopted on May 29th 2002, encouraging collaboration on issues of common interest, including commitments to invite each other to participate as observers in relevant activities and international conferences, and to share points of view,

CONSIDERING the importance of strong public – private partnership, wherein the OIE and WVA are complementary and create synergies for achieving their mutual goals and objectives,

NOW THEREFORE, the OIE and WVA (hereinafter collectively referred to as the ‘Parties’ and individually referred to as a ‘Party’) have agreed on the following modalities of cooperation on issues of common interest.

ARTICLE 1
MODALITIES OF COOPERATION
The Parties will extend to each other invitations for participation in all meetings, seminars and conferences during which matters of common interest are to be discussed and where observers are allowed.

The Parties agree to further strengthen their collaboration in particular in the following areas of activity, where both Parties share strong mutual interests:

‘ONE HEALTH’
The key objectives are to:
(i) encourage and assist the veterinary profession to communicate and collaborate with the medical profession;
(ii) help countries to develop and articulate formal collaboration arrangements between human health, veterinary and environmental services; and
(iii) give specific attention to antimicrobial resistance (AMR) and rabies.

The objectives of the OIE-WVA collaboration in the area of antimicrobial resistance are to:
(i) advocate that antimicrobials are a global public good and AMR should be considered as a global threat;
(ii) promote the leading role and responsibility of the veterinary profession in the prudent use of antimicrobials for animal health, and
to promote the WVA Global Basic Principles on the responsible Use of Antimicrobials; and

(iii) help countries to progressively comply with OIE international standards that relate to antimicrobial resistance, namely chapters 6.6. to 6.10. of the OIE *Terrestrial Animal Health Code* and chapters 6.2. to 6.5. of the OIE *Aquatic Animal Health Code* as well as the list of antimicrobial agents of veterinary importance.

The objectives of the OIE-WVA collaboration in the area of rabies prevention and control are to:

(i) promote the role and responsibility of the veterinary profession in the control and eradication of rabies in animals, in particular in dogs;

(ii) promote the World Veterinary Association position regarding rabies

(iii) urge political leaders in countries where the disease is endemic to take action by establishing rabies control programmes; and

(iv) help countries, Veterinary Services and the veterinary profession to implement appropriate rabies prevention and control methods in accordance with Chapter 8.11. of OIE *Terrestrial Animal Health Code*.

GOOD GOVERNANCE OF VETERINARY SERVICES

The WVA and the OIE recognise the importance of developing sustainable public-private partnerships that include the public and private sector components of Veterinary Services, and promote the roles of veterinarians and Veterinary Statutory Bodies. Of particular importance is the requirement for sustainable field veterinary networks able to recognise, report and respond appropriately to any significant veterinary epidemiological event (from natural, accidental or intentional origin). The key objectives of the OIE-WVA collaboration in this area are to:

(i) promote the key roles of the Veterinary Services, including veterinarians and Veterinary Statutory Bodies, in the fields of animal health, animal welfare, food security and food safety, thereby helping to protect and improve public health;

(ii) promote the role of veterinarians as well educated professionals, bound by a professional oath, working according to a professional code of conduct and codes of Good Veterinary Practice, licensed and supervised by a veterinary statutory body (or equivalent);

(iii) promote the prevention and control of animal diseases including zoonoses – and by extension the Veterinary Services – as a Global Public Good;

(iv) help countries to progressively comply with the OIE *Terrestrial Animal Health Code* and the OIE *Aquatic Animal Health Code* on the quality of Veterinary Services and Aquatic Animal Health Services.

GODV SOGEOE OF VETERINARY SERVICES

The key objectives of the OIE-WVA collaboration in this area are to:

(i) help countries to develop modern veterinary educational facilities, curricula and methods, based on the OIE Recommendations on the Competencies of Graduating Veterinarians (‘Day 1 Graduates’), and the accompanying Veterinary Education Core Curriculum;

(ii) promote the development of objective and reliable methods for quality assurance in veterinary education and the accreditation of veterinary education establishments.

VETERINARY EDUCATION

The key objectives of the OIE-WVA collaboration in this area are to:

(i) help countries to develop modern veterinary educational facilities, curricula and methods, based on the OIE Recommendations on the Competencies of Graduating Veterinarians (‘Day 1 Graduates’), and the accompanying Veterinary Education Core Curriculum;

(ii) promote the development of objective and reliable methods for quality assurance in veterinary education and the accreditation of veterinary education establishments.

ARTICLE 2

LEGAL AND FINANCIAL ASPECTS

Nothing in this Agreement shall give rise to financial obligations upon either Party.

To the extent any activity may give rise to financial obligations, a separate agreement shall be concluded subject to the Parties’ respective internal rules and policies, prior to such activity being undertaken.

The Parties will mutually agree on preparation and issuance of any publications resulting from this Agreement. If a Party (the ‘Publishing Party’) prepares and issues publications on its own, the other Party shall be given the opportunity to comment on the content before the publication is issued and the Parties will agree on any further amendment to the text. The copyright to the publication shall remain with the Publishing Party. The copyright of any contribution made to the publication by the other Party (the ‘Contributing Party’) will be retained by the Contributing Party who hereby grants to the Publishing Party a


Cooperation agreement between the World Veterinary Association (WVA) and the World Organisation for Animal Health (OIE) (contd)

... worldwide, non-exclusive, sub-licensable, royalty-free license to use such copyright for purposes of publication.

The collaboration of the Parties shall be duly acknowledged in any publication resulting from this Agreement, unless a Party notifies that it does not wish to be associated with the publication. The wording of the acknowledgement shall be agreed between the Parties.

ARTICLE 3
USE OF THE PARTIES’ NAMES AND EMBLEMS

Except as provided in this Agreement, neither Party shall use the other Party’s name, acronym and/or emblem, without the prior written consent of the other Party.

ARTICLE 4
LIABILITY

Each Party shall be solely responsible for the manner in which it carries out its part of the collaborative activities under this Agreement and/or any subsequent agreement. Thus, neither Party shall be responsible for any loss, accident, damage or injury suffered or caused by the other Party, or that other Party’s employees, consultants or sub-contractors, in connection with, or as a result of, the collaborative activities under this Agreement and/or any subsequent agreement, unless such loss, accident, damage or injury suffered by one Party results from gross negligence or willful misconduct of the other Party.

Either Party may terminate this Agreement by giving six months’ notice to the other Party. Termination will not affect the implementation of ongoing activities which have been decided by the Parties prior to the date of termination, unless otherwise agreed by the Parties in writing.

Any dispute arising out of the interpretation or implementation of the provisions of this Agreement shall be settled amicably through consultation or negotiation between the Parties.

IN WITNESS WHEREOF, the Director General of the World Organisation for Animal Health and the President of the World Veterinary Association have signed the present Agreement in duplicate, in English, on 26 May 2015.

Dr René Carlson
President
WVA

Dr Bernard Vallat
Director General
OIE

IN WITNESS WHEREOF, the Director General of the World Organisation for Animal Health and the President of the World Veterinary Association have signed the present Agreement in duplicate, in English, on 26 May 2015.

Dr René Carlson
President
WVA

Dr Bernard Vallat
Director General
OIE

ARTICLE 5
GENERAL PROVISIONS

This Agreement supersedes and replaces the Agreement adopted on 29 May 2002 between the Parties.

This Agreement will enter into force upon signature by the Director General of the OIE and the President of WVA.

This Agreement shall have an initial four-year term which may be renewed in writing by mutual consent of the Parties.

This Agreement may be amended by mutual consent expressed in writing.
PVS Evaluation missions
State of Play – as at 22 September 2015

<table>
<thead>
<tr>
<th>OIE Region</th>
<th>OIE Members</th>
<th>Requests received</th>
<th>Missions completed</th>
<th>Reports available for distribution to donors and partners</th>
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<tr>
<td>Africa</td>
<td>54</td>
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</tbody>
</table>

PVS Evaluation mission requests

- **Africa (53)**

- **Americas (25)**
  Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Rep., Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela.

- **Asia-Pacific (25)**

- **Europe (19)**
  Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Iceland, Israel, Kazakhstan, Kyrgyzstan, Former Yug. Rep. of Macedonia, Romania, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

- **Middle East (13)**
  Afghanistan, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian N.A. (observer), Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen.

In red: completed missions
OIE PVS Pathway for efficient Veterinary Services

Legislation missions
State of Play – as at 22 September 2015

<table>
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<tr>
<th>OIE Region</th>
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Legislation mission requests

- **Africa (41)**

- **Americas (7)**
  Barbados, Bolivia, Dominican Rep., Guatemala, Haiti, Honduras, Paraguay.

- **Asia/Pacific (6)**
  Bhutan, Cambodia, Laos, Mongolia, Papua New Guinea, Vietnam.

- **Europe (5)**
  Armenia, Georgia, Israel, Kazakhstan, Kyrgyzstan.

- **Middle East (5)**
  Afghanistan, Kuwait, Lebanon, Saudi Arabia, United Arab Emirates.

In red: completed missions

PVS Gap Analysis missions
State of Play – as at 22 September 2015

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PVS Gap Analysis mission requests

- **Africa (47)**

- **Asia-Pacific (19)**

- **Europe (9)**
  Armenia, Azerbaijan, Bosnia and Herzegovina, Israel, Kazakhstan, Kyrgyzstan, Serbia, Tajikistan, Turkey.

- **Middle East (10)**
  Afghanistan, Jordan, Kuwait, Lebanon, Oman, Palestinian N.A. (observer), Saudi Arabia, Syria, United Arab Emirates, Yemen.

In red: completed missions
Canada hosts a PVS Information Seminar
Ottawa, Ontario, Canada, 18–19 March 2015

Canada is considering options for carrying out a critical evaluation of its Veterinary Services. The method chosen must be objective, comprehensive and recognised by Canada’s trading partners. The OIE Performance of Veterinary Services (PVS) Tool meets all three requirements and the fact that it is competency-based, and identifies strengths, weaknesses and gaps, makes it an attractive option.

Canada covers a huge area and the responsibility for delivering its Veterinary Services is shared among its federal, provincial and territorial governments. With so many different groups needing to be involved in the assessment, the Canadian Food Inspection Agency (CFIA), which is ultimately responsible for spearheading the evaluation, conducted a series of informal consultations to gauge interest in the PVS Tool. All responses thus far have been positive and stakeholders signalled their interest in learning more about the PVS Tool.

The Canadian PVS Information Seminar took place on 18 and 19 March 2015 at the CFIA’s headquarters in Ottawa, Ontario. The seminar was delivered by Dr Herbert Schneider, Chair of the OIE ad hoc Group on the Evaluation of Veterinary Services, and Dr François Caya, Head of the OIE Regional Activities Department. Dr Barry Stemshorn presented his perspective as a Canadian OIE-certified expert who has completed several PVS Evaluation missions around the world.

The presentations on 18 March covered a basic overview of the OIE, the Terrestrial Animal Health Code, the PVS Pathway, the PVS Tool, and Critical Competencies, and finished with some special perspectives for Canada. Approximately 50 people, representing several federal government departments, provincial and territorial Chief Veterinary Officers, veterinary colleges and regulators, agricultural industry associations, non-governmental organisations and the office of the United States Chief Veterinary Officer, attended this session, which was designed to give all stakeholders in-depth background information about the PVS Tool and how a PVS Evaluation is conducted.

The following day’s session was restricted to federal and provincial government officials only. The purpose of the session was to allow Canadian government officials to question the OIE experts about resource requirements and implications for Canada, should it decide to go ahead with a PVS Evaluation. The OIE experts shared some best practices and issues to consider when preparing for, and completing, a PVS Evaluation.

The response to the seminar was overwhelmingly positive and all participants agreed that the PVS Tool is an appropriate method to evaluate the performance of Canada’s Veterinary Services. Further consultations are needed to clearly define Canada’s objectives in completing a PVS Evaluation and to envisage how the results will be used before a final decision is made. One possible next step is to organise a five-day training session on the PVS Tool.

Veterinary Legislation Support Programme Expert Training Seminar
OIE Headquarters, Paris, 24–26 March 2015

Veterinary legislation is an essential element of a nation’s infrastructure. It provides the power and authority necessary for Veterinary Services to carry out their key tasks efficiently to ensure public safety and promote the public good. In the face of growing global demand for foods of animal origin, increasing world trade, shifting patterns of disease associated with climate change and the emergence and re-emergence of diseases that can rapidly spread across international borders, Veterinary Services must be supported by effective and modern legislation.

Yet, in many countries, veterinary legislation is outdated and inadequate to meet current and future challenges and
society’s expectations. In response, the OIE established the Veterinary Legislation Support Programme (VLSP) in 2008, to help its Member Countries to identify and address their needs in implementing modern, comprehensive veterinary legislation. The VLSP has since become an integral component of the OIE’s Performance of Veterinary Services (PVS) Pathway, which is designed to help OIE Member Countries improve the overall capacity and operation of their Veterinary Services.

The key activity of the VLSP is to conduct Veterinary Legislation Identification Missions at the request of OIE Member Countries that have already undergone a PVS Evaluation. The objectives of a Veterinary Legislation Identification Mission are to:

– raise awareness of the essential elements of legal drafting that result in quality veterinary legislation, and of the importance of quality veterinary legislation for effective Veterinary Services
– assess the compliance of a Member Country’s veterinary legislation with Chapter 3.4. of the Terrestrial Animal Health Code, which deals with veterinary legislation
– ascertain the available human, financial and organisational resources of the Member Country to help it enact high-quality veterinary legislation
– identify or support the preparation of national priorities for veterinary legislation
– develop recommendations to modernise the Member Country’s veterinary legislation.

To carry out these missions, the OIE recruits and trains VLSP experts. A VLSP Expert Training Seminar was conducted at OIE Headquarters in Paris from 24 to 26 March 2015. Notably, those selected for the training included lawyers and jurists as well as veterinarians. Since a key message of all Veterinary Legislation Identification Missions is that lawyers and veterinarians must work together to draft high-quality veterinary legislation, it was seen as imperative for the OIE to train lawyers and jurists as VLSP experts so that they could participate in Veterinary Legislation Identification Missions alongside veterinarians as team members.

In addition to the new trainees, existing VLSP experts were also invited to take part in the training seminar for two reasons. First, so that they could share their VLSP experiences with new trainees; and secondly, so that they could be briefed on the contents and use of the second edition of the VLSP Manual for Experts, which has now been completed.

In all, some 45 participants attended the training session, including 8 veterinary experts, 12 new trainees who were veterinarians and 15 new trainees who were lawyers or jurists. The rest of those attending were OIE staff from Paris Headquarters and selected Regional and Sub-Regional Representations.

The main goals of the seminar were:

– to expand the pool of VLSP experts to include lawyers and jurists
– to expand the number of experts with regional language skills, including Arabic and Russian
– to train new experts on the principles, procedures and practices of VLSP missions
– to encourage cooperation and collaboration between lawyers and veterinarians on activities related to VLSP missions through group work, and
– to review the contents of the new, second edition of the VLSP Manual for Experts for existing and new experts.

It is expected that, with the addition of this new group of experts trained at this seminar, the VLSP will be able to speedily and effectively meet the growing demand for VLSP Identification Missions from OIE Member Countries.
Many South-East Asian countries have already undergone an OIE Performance of Veterinary Services (PVS) Evaluation and PVS Gap Analysis mission and are at the point of requesting a PVS Evaluation Follow-up mission or some other capacity-building activity. For this reason, the OIE organised a Sub-Regional Workshop on the PVS Pathway, to bring together Veterinary Services representatives who have been involved in PVS Pathway missions in their native countries. The aim was to discuss the progress of the various Veterinary Services and explore future strategies for the OIE PVS Pathway in this region.

The workshop was organised by the OIE Sub-Regional Representation for South-East Asia (SRR–SEA) under the Stop Transboundary Animal Diseases (STANDZ) Project, with funding support from AusAid. It was attended by 37 participants, including ten nominated PVS Pathway ‘contact points’, three OIE Delegates and 16 Veterinary Service representatives from ten South-East Asian countries, as well as guest speakers from the Australia Indonesia Partnership for Emerging Infectious Diseases, observers from the host country, Indonesia, and OIE staff from the SRR–SEA, the Regional Representation for Asia and the Pacific and Headquarters in Paris.

The workshop provided an opportunity for countries to share their progress in strengthening fundamental components of their Veterinary Services, as per recommendations from previous PVS Pathway Reports. A further goal was to discuss recommendations for the success of future OIE PVS Evaluation Follow-up missions and to promote avenues of cooperation within the Veterinary Services of the region.

The three-day programme included five sessions:

- a regional review of OIE PVS Evaluations and PVS Gap Analyses
- country-specific updates on progress and outcomes in strengthening Veterinary Services through the OIE PVS Evaluation and PVS Gap Analysis
- new and continuing PVS Pathway activities in ASEAN1 Member States
- strengths and gaps in the Veterinary Services of ASEAN Member States
- strategies for future OIE PVS activities.

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1 ASEAN: Association of South-East Asian Nations
In the opening ceremony, Dr Pudjiatmoko, Director of Animal Health of the host country, Indonesia, commended the OIE for assisting the Veterinary Services of the region to improve their compliance with OIE standards through the PVS Pathway. He agreed with the OIE’s statement that good governance of animal health systems is based, among other things, on close public–private partnerships and is the responsibility of all governments.

Dr François Caya, Head of the OIE Regional Activities Department at Headquarters, commented on the importance of having similar regular workshops so that the impact of the PVS Pathway can be illustrated and evaluated by the OIE, national Veterinary Services and, of course, donors.

In preparation for day one of the workshop, representatives from each country were asked to present recent progress in strengthening their national Veterinary Services in relation to the fundamental components of the OIE PVS Tool. These presentations clearly illustrated the progress of ASEAN Member States, while at the same time highlighting legislative and resource gaps that still exist. They also provided a platform for participants to share their experiences. For example, the country presentations highlighted how PVS Pathway Reports can be used by Veterinary Services as an introspective tool to understand strengths and weaknesses within their own system, so that they can better focus their energy and resources on resolving identified shortcomings. Secondly, speakers discussed how the PVS Pathway Reports helped them to secure budgetary and funding requests from their Ministries and international donors. The reports were also used to promote Veterinary Services by raising awareness of the public good that they perform within government, and society as a whole.

Day two of the Workshop provided a more in-depth opportunity for participants to discuss approaches for bridging gaps and addressing shortcomings in their Veterinary Services. Day three was dedicated to a discussion on how the OIE can add to the value of the OIE PVS Pathway in its Member Countries and improve communication and distribution of the Pathway reports to the relevant parties.

Participants seemed to find the workshop’s sessions productive, and key recommendations and conclusions included an agreement that the OIE should explore the possibility of OIE Delegates nominating a PVS ‘contact person’ in each OIE Member Country, and also that it should offer training workshops on the PVS Tool. Participants also agreed to take the PVS as an agenda item to the forthcoming ASEAN Sectoral Working Group on Livestock Meeting, currently chaired by Thailand, and to organise more frequent PVS meetings in the sub-region. Finally, participants emphasised the importance of involving donors to support the implementation of PVS Pathway recommendations in ASEAN Member States.
OIE Regional Workshops
for focal points and Information Seminars for new Delegates

Regional Information Seminar for Recently Appointed OIE Delegates
Paris, France, 23 May 2015

This year, for the first time, the Regional Information Seminar for Recently Appointed OIE Delegates, traditionally held the day before the General Session of the OIE World Assembly of Delegates, welcomed participants from all five regions of the OIE, not just from the Americas and the Middle East, as in previous meetings.

The seminar was also open to all other OIE Delegates interested in attending, since some OIE Delegates had not been able to attend a similar meeting when they were first appointed, and all Delegates can benefit from refreshing and updating their knowledge of the OIE. Also invited were OIE National Focal Points who wanted to improve their understanding of their role in supporting OIE Delegates, and recently hired OIE staff.

The seminar brought together 33 new Delegates, five Senior Delegates and 21 other members of national delegations which had arrived for the 83rd General Session, including OIE National Focal Points. Thirty new staff members from the OIE Regional and Sub-Regional Representations (RR/SRRs) along with staff from OIE Headquarters were also present, as were senior RR/SRR staff.

The aim of the seminar was to provide a comprehensive introduction to the OIE’s mandate and activities, as well as its operating procedures, and to inform OIE Delegates of their rights and responsibilities at the national and international level. Another objective of the seminar was to provide Delegates with practical insights into their role in ensuring efficient communication and cooperation with OIE Headquarters, the relevant OIE Regional Commissions and OIE RR/SRRs, and with other OIE Member Countries, on behalf of their own government. Accordingly, the seminar was divided into five themes:

− OIE missions and functions
− the rights and responsibilities of OIE Delegates and OIE National Focal Points
− OIE health standards
− animal disease notification, and
− support available to OIE Members through the Performance of Veterinary Services (PVS) Pathway and other capacity-building activities.

A new initiative, well received by participants, was an updated programme featuring presentations from external speakers who shared their country’s experiences, such as Denmark’s involvement in the OIE standard-setting process and Thailand’s success story with implementing the OIE PVS Pathway.

The seminar saw some lively discussion and participants expressed mainly positive opinions about the usefulness of the meeting in their evaluation forms. As a result, the Director General has decided that, from now on, all seminars for newly appointed OIE Delegates will take place once a year in Paris, before the General Session.
# meetings and visits

Names and positions of OIE permanent staff who participated in meetings or visits from April to June 2015

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<th>OIE Headquarters</th>
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<tr>
<td><strong>General Directorate</strong></td>
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<tr>
<td>Bernard Vallat</td>
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<tr>
<td>Alex Thiermann</td>
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<td>Marina Domingo Monsonis</td>
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</tbody>
</table>
Names and positions of experts who represented the OIE in meetings or visits from April to June

Jacques Acar OIE Senior Expert
Emilio Arnaldo Leon OIE PVS Expert
Etienne Bonbon Vice-President (until 29 May 2015) and President (from 29 May 2015) of the OIE Terrestrial Animal Health Standards Commission
John Clifford Member of the OIE Council (until 29 May 2015) and Delegate of the United States of America to the OIE
Susan Corning OIE Consultant
Carlos A. Correa Messuti Past President of the World Assembly of OIE Delegates (until 29 May 2015) and Delegate of Uruguay to the OIE
Kris de Clercq 1st Vice-President of the OIE Scientific Commission for Animal Diseases
Mehdi El Harrak Member of the OIE Biological Standards Commission (from 29 May 2015)
Anthony Fooks Member of the OIE Biological Standards Commission (from 29 May 2015)
Sarah Kahn OIE Consultant
Somjai Kamolsiripchaiporn OIE Expert, OIE Reference Laboratory for Foot and Mouth Disease (Nakhon Ratchasima, Thailand)
Nicholas Kauta Member of the OIE Council and Delegate of Uganda to the OIE
Toshiro Kawashima Member of the OIE Council and Delegate of Japan to the OIE
Botthe Michael Modisane Vice-President (until 29 May 2015) and President (from 30 May 2015) of the OIE Council and Delegate of South Africa to the OIE
Gérard Moulin OIE Expert, OIE Collaborating Centre for Veterinary Medicinal Products (Fougères, France)
Gardner Murray OIE Special Adviser
Evgeny Nepoklonov Member of the OIE Council and Delegate of Russia to the OIE
José Manuel Sánchez-Vizcaíno OIE Expert, OIE Reference Laboratory for African Horse Sickness and African Swine Fever (Madrid, Spain)
Mark Schipp Member (until 29 May 2015) and Vice-President (from 30 May 2015) of the OIE Council, and Delegate of Australia to the OIE
Karin Schwabenbauer President (until 29 May 2015) and Past President (from 30 May 2015) of the World Assembly of OIE Delegates, and Delegate of Germany to the OIE
Blesilda Verin Project Officer, Northern Laos FMD Project
Gary Vroegindewey OIE Expert
Zhiliang Wang OIE Expert, OIE Reference Laboratory for Newcastle disease and Peste des petits ruminants (Qingdao, P.R. China)
John Weaver OIE PVS Expert

List of abbreviations

ADIS Animal Disease Information System of the European Union
AGISAR Advisory Group on Integrated Surveillance of Antimicrobial Resistance
ASEAN Association of South-East Asian Nations
AU-IBAR African Union-Interafrican Bureau for Animal Resources
BTSF Better Training for Safer Food (programme)
CABI Centre for Agricultural Bioscience International
CaribVET Caribbean Animal Health Network
CARICOM Caribbean Community
CCFH Codex Committee on Food Hygiene
CIC International Council for Game and Wildlife Conservation
CILSS Permanent Interstates Committee for Drought Control in the Sahel
CIRAD French Agricultural Research Centre for International Development
COMESA Common Market for Eastern and Southern Africa
CORDS Connecting Organizations for Regional Disease Surveillance
COSALFA
South-American Commission for the Fight against Foot and Mouth Disease

CVs
Chief Veterinary Officers

DG SANTE
Directorate General for Health and Food Safety of the European Commission

EC
European Commission

ECOWAS
Economic Community of West African States

EFSA
European Food Safety Authority

EMRO
WHO Regional Office for the Eastern Mediterranean

EU
European Union

EuFMD
European Commission for the Control of Foot and Mouth Disease

FAO
Food and Agriculture Organization of the United Nations

FeedLatina
Latin American and Caribbean Feed Industry Association

FEI
International Equestrian Federation

FMD
Foot and mouth disease

FVE
Federation of Veterinarians of Europe

GARC
Global Alliance for Rabies Control

GHC
Global Health Security Agenda

GF-TADs
FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases

GHSA
Global Health Security Agenda

IAC
High-Health High-Performance (FEI concept for horses)

IAEA
International Atomic Energy Agency

IATA
International Air Transport Association

ICIP
International Centre of Insect Physiology and Ecology

ICLAS
International Council of Laboratory Animal Science

ICPALS
IGAD Centre for Pastoral Areas and Livestock Development

ICRC
International Committee of the Red Cross

IHA
HealthforAnimals, Global Animal Medicines Association

IGAD
International Federation of Horseracing Authorities

ILO
International Labour Organization

IMPE
International Meat and Poultry Exporters

INTELSAN
International Trade and Education in Livestock Sanitary and Health

INTERPOL
International Criminal Police Organization

JTF
Japan Trust Fund

LiDeSA
Livestock Development Strategy for Africa

M&E
Monitoring & Evaluation

MEEREB
Middle East and Eastern Europe Rabies Expert Bureau

MERS-CoV
Middle East Respiratory Syndrome Coronavirus

OECD
Organisation for Economic Co-operation and Development

OFFLU
Joint OIE/FAO worldwide scientific network for the control of animal influenzas

OIE
World Organisation for Animal Health

PAN-SPSO
Participation of African Nations in Sanitary and Phytosanitary Standard-setting Organisations

PCR
Polymerase chain reaction

PHEFA
Hemispheric Plan of Eradication of Foot and Mouth Disease

PRAP
Regional Sahel Pastoralism Support Project

PVS
Evaluation of Performance of Veterinary Services

REEV-Med
Mediterranean Network of Establishments for Veterinary Education

SMP-AM
Standard Methods and Procedures in Animal Health (AU-IBAR project funded by the USAID)

SPS
Sanitary and phytosanitary measures

STANDZ
Stop Transboundary Animal Diseases and Zoonoses

STDF
Standards and Trade Development Facility

STRIVES
Strengthening Initiative for Veterinary Services

TAKE
Technical Assistance and Information Exchange Instrument (of the European Commission)

TBT
Technical Barriers to Trade

UMA
Arab Maghreb Union

UN/CEFACT
United Nations Centre for Trade Facilitation and Electronic Business

USAID
United States Agency for International Development

VMERGE
Risk of emerging viral vector-borne diseases (CIRAD research project)

WAVLD
World Association of Veterinary Laboratory Diagnosticians

WCO
World Customs Organization

WHO
World Health Organization

WMA
World Medical Association

WSAVA
World Small Animal Veterinary Association

WTO
World Trade Organization

WVA
World Veterinary Association
## meetings and visits

### April 2015

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapping workshop to support the creation of a West African Regional Surveillance</td>
<td>Geneva, Switzerland</td>
<td>30 March – 1 April</td>
<td>Dr S. de La Rocque</td>
</tr>
<tr>
<td>Network, through CORDS</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6th Inter-Agency Liaison Group Meeting on Invasive Alien Species</td>
<td>London, United Kingdom</td>
<td>1–2 April</td>
<td>Dr J. M. Lee</td>
</tr>
<tr>
<td>1st European Virus Archive goes Global (EVAg) Project Meeting</td>
<td>Pasteur Institute, Paris, France</td>
<td>1–2 April</td>
<td>Dr E. Erlacher-Vindel</td>
</tr>
<tr>
<td>Meeting with Mr Ilia Shestakov, Vice-Minister of Agriculture of Russia</td>
<td>Moscow, Russia</td>
<td>1–2 April</td>
<td>Prof. K. Lukauskas</td>
</tr>
<tr>
<td>23rd ASEAN Sectoral Working Group on Livestock (ASWGL) Meeting</td>
<td>Chiang Mai, Thailand</td>
<td>1–3 April</td>
<td>Dr H. Kugita, Dr H. Thidier Myint, Dr Y. Aoyama, Dr R. Abila &amp; Dr M.J. Gordoncillo</td>
</tr>
<tr>
<td>Meeting of the Veterinary Consultative Council of the Ministry of Agriculture and</td>
<td>Sofia, Bulgaria</td>
<td>2 April</td>
<td>Prof. N.T. Belev</td>
</tr>
<tr>
<td>Food of Bulgaria</td>
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</tr>
<tr>
<td>GHSA teleconference on ‘Biosafety and Biosecurity’ (‘Prevent-3’) Action Package</td>
<td>Rome, Italy</td>
<td>5 April</td>
<td>Dr S. Corning</td>
</tr>
<tr>
<td>Pilot project site visits and rabies mission</td>
<td>Masbate and Quezon City, the Philippines</td>
<td>6–10 April</td>
<td>Dr M.J. Gordoncillo</td>
</tr>
<tr>
<td>National FMD Laboratories Capacity and Capability in Preparation for Testing of</td>
<td>Naypyidaw, Myanmar</td>
<td>6–10 April</td>
<td>Dr B. Verin</td>
</tr>
<tr>
<td>Post-Vaccination Monitoring (PVM) Samples for the FMD Vaccination Campaign in</td>
<td></td>
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<tr>
<td>Central Myanmar</td>
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<tr>
<td>Advanced Training on FMD Laboratory Data Analysis</td>
<td>Tsukuba and Kodaira, Japan</td>
<td>6–15 April</td>
<td>Dr B. Basan</td>
</tr>
<tr>
<td>World Health Day 2015 on ‘Food safety’</td>
<td>Rungis, France</td>
<td>7 April</td>
<td>Dr B. Vallat, Dr C. Bertrand-Ferrandis &amp; Dr B. Evans</td>
</tr>
<tr>
<td>GF-TADs Working Group Meeting on FMD</td>
<td>FAO Headquarters, Rome, Italy</td>
<td>7 April</td>
<td>Dr J. Domenech, Dr L. Weber-Vintzel &amp; Dr N. Leboucq</td>
</tr>
<tr>
<td>World Health Day 2015 on ‘Food safety’</td>
<td>WHO Regional Office, Astana, Kazakhstan</td>
<td>7 April</td>
<td>Dr M. Taitubayev</td>
</tr>
<tr>
<td>World Health Day 2015 on ‘Food safety’</td>
<td>Bangkok, Thailand</td>
<td>7 April</td>
<td>Dr P. Matayompong</td>
</tr>
<tr>
<td>6th Regional workshop: ‘Assistance to Western Balkan countries for improving</td>
<td>Sarajevo, Bosnia and Herzegovina</td>
<td>7–9 April</td>
<td>Dr G. Mylrea</td>
</tr>
<tr>
<td>compliance to international standards on aquatic animal health’</td>
<td></td>
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</tr>
<tr>
<td>Audit of Italy and Tunisia for the laboratory twinning project on bluetongue</td>
<td>Rome, Italy and Tunis, Tunisia</td>
<td>7–10 April</td>
<td>Dr G. Pavade</td>
</tr>
<tr>
<td>3rd MEEREB meeting, organised by the Foundation Métieux</td>
<td>Lyon, France</td>
<td>8–9 April</td>
<td>Dr A. Dehove</td>
</tr>
<tr>
<td>7th Joint FAO/OIE Rinderpest Advisory Committee Meeting</td>
<td>FAO Headquarters, Rome, Italy</td>
<td>8–9 April</td>
<td>Dr K. Hamilton &amp; Dr D. Visser</td>
</tr>
<tr>
<td>FMD Socio-economic Guidelines – Expert Panel Meeting</td>
<td>FAO Headquarters, Rome, Italy</td>
<td>8–10 April</td>
<td>Dr J. Domenech, Dr L. Weber-Vintzel &amp; Dr N. Leboucq</td>
</tr>
<tr>
<td>22nd meeting of the CILSS Scheduling and Follow-up Regional Committee</td>
<td>Bamako, Mali</td>
<td>9–11 April</td>
<td>Dr Y. Samaké &amp; Dr K. Tounkara</td>
</tr>
<tr>
<td>40th Anniversary of Sidi Thabet National Veterinary School</td>
<td>Hammamet, Tunisia</td>
<td>10 April</td>
<td>Dr M. Eloit, Dr R. Bouguedour, Dr A. Ripani &amp; Dr J. Mérot</td>
</tr>
<tr>
<td>3rd REEV-Med Executive Committee Meeting</td>
<td>Hammamet, Tunisia</td>
<td>10 April</td>
<td>Dr M. Eloit, Dr R. Bouguedour, Dr A. Ripani &amp; Dr J. Mérot</td>
</tr>
<tr>
<td>OIE information seminar for veterinary educational establishments</td>
<td>Kuala Lumpur, Malaysia</td>
<td>10 April</td>
<td>Dr P. Matayompong &amp; Dr S. Zaari</td>
</tr>
<tr>
<td>OIE information seminar for practicing veterinarians</td>
<td>Kuala Lumpur, Malaysia</td>
<td>11 April</td>
<td>Dr P. Matayompong &amp; Dr S. Zaari</td>
</tr>
<tr>
<td>9th International Symposium on Avian Influenza and OFFLU Technical Meeting</td>
<td>Athens, Georgia, United States</td>
<td>12–15 April</td>
<td>Dr G. Pavade</td>
</tr>
<tr>
<td>High-Level Meeting at Pasteur Institute</td>
<td>Pasteur Institute, Paris, France</td>
<td>13 April</td>
<td>Dr B. Vallat &amp; Dr A. Dehove</td>
</tr>
<tr>
<td>50th Ordinary Session of the CILSS Council of Ministers</td>
<td>Bamako, Mali</td>
<td>13 April</td>
<td>Dr Y. Samaké &amp; Dr K. Tounkara</td>
</tr>
<tr>
<td>Pre-COSALFA International Seminar: ‘Follow-up of the PHFIA; prevention in FMD</td>
<td>Quito, Ecuador</td>
<td>13–14 April</td>
<td>Dr L.O. Barcos</td>
</tr>
<tr>
<td>free zones’</td>
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</tr>
</tbody>
</table>
meetings and visits

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-project mission on camel diseases</td>
<td>Brescia and Palermo, Italy</td>
<td>13–15 April</td>
<td>Dr G. Yehia</td>
</tr>
<tr>
<td>FeedLatina Project 2nd Technical Committee Meeting and 3rd Steering Committee Meeting</td>
<td>Montevideo, Uruguay</td>
<td>13–17 April</td>
<td>Dr M. Minassian</td>
</tr>
<tr>
<td>Regional hands-on laboratory training on porcine reproductive and respiratory syndrome and other swine disease diagnosis</td>
<td>Beijing, P.R. China</td>
<td>13–17 April</td>
<td>Dr H. Kugita &amp; Dr L. Liu</td>
</tr>
<tr>
<td>Symposium on animal identification and recording systems for traceability and livestock development in African countries</td>
<td>Pretoria, South Africa</td>
<td>14–16 April</td>
<td>Dr M. Letshweno</td>
</tr>
<tr>
<td>1st AU-IBAR/OIE joint evaluation mission on launching the pilot projet on awareness and support to policy reform for Sáo-Tomé-and-Príncipe National Livestock Services</td>
<td>Sáo Tomé, Sáo Tomé and Príncipe</td>
<td>14–17 April</td>
<td>Dr P. Bastiaansen</td>
</tr>
<tr>
<td>GHSA Teleconference</td>
<td>OIE Headquarters, Paris, France</td>
<td>15 April</td>
<td>Dr A. Dehove</td>
</tr>
<tr>
<td>17th Conference of CILSS Heads of States</td>
<td>Bamako, Mali</td>
<td>15 April</td>
<td>Dr Y. Samaké &amp; Dr K. Tounkara</td>
</tr>
<tr>
<td>7th FAO/OIE Regional Steering Committee Meeting of the GF-TADs for the Americas</td>
<td>Quito, Ecuador</td>
<td>15 April</td>
<td>Dr L.O. Barcos</td>
</tr>
<tr>
<td>3rd International Symposium on Neglected Influenza Viruses and Side-meeting of the OIFLU Swine Influenza Virus (SIV) Group</td>
<td>Athens, Georgia, United States</td>
<td>15–17 April</td>
<td>Dr K. Hamilton</td>
</tr>
<tr>
<td>Meeting of the International Poultry Council (IPC)</td>
<td>Rome, Italy</td>
<td>16 April</td>
<td>Dr B. Evans</td>
</tr>
<tr>
<td>2015 Regional Rabies Scientific Conference</td>
<td>Wuhan, P.R. China</td>
<td>16–17 April</td>
<td>Dr G.J. Torres Peñalver, Dr H. Kugita, Dr Y. Oh &amp; Dr M.J. Gordoncillo</td>
</tr>
<tr>
<td>Conference on ‘Natural disasters and ‘One Health’ concept: Are we prepared to react?, organised by FVE</td>
<td>Brussels, Belgium</td>
<td>16–17 April</td>
<td>Dr T. Grudnik, Dr L.H. Stuardo Escobar, Dr N. Leboucq &amp; Dr G. Vroegindewey</td>
</tr>
<tr>
<td>42nd COSALFA Ordinary Meeting</td>
<td>Quito, Ecuador</td>
<td>16–17 April</td>
<td>Dr L.O. Barcos</td>
</tr>
<tr>
<td>General Assembly of the French Federation of Groups for Sanitary Defense (GDS France)</td>
<td>Aregno, France</td>
<td>17 April</td>
<td>Dr R. Bouguedour</td>
</tr>
<tr>
<td>Tripartite (FAO/OIE/WHO) Teleconference</td>
<td>OIE Headquarters, Paris, France</td>
<td>20 April</td>
<td>Dr A. Dehove</td>
</tr>
<tr>
<td>International Workshop on ‘Applied Veterinary Research: Advancing Human and Animal Health and Welfare’</td>
<td>Hong Kong, Special Administrative Region of P.R. China</td>
<td>20–21 April</td>
<td>Dr H. Thidar Myint &amp; Dr Y. Aoyama</td>
</tr>
<tr>
<td>2nd session of the OIE ‘Train the Trainers’ Regional Workshop on animal welfare during transport and slaughter</td>
<td>Tbilisi, Georgia</td>
<td>20–24 April</td>
<td>Dr R. Kolesar &amp; Dr S. Raichew</td>
</tr>
<tr>
<td>Training-of- Trainers Session on the transport of infectious substances by air, organised by IATA</td>
<td>Geneva, Switzerland</td>
<td>20–24 April</td>
<td>Dr F. Diaz</td>
</tr>
<tr>
<td>1st Regional Conference on Research and Surveillance of Emerging and Zoonotic Vector-Borne Animal Diseases, organised by CIRAD</td>
<td>Capesterre-Belle- Eau, Guadeloupe, France</td>
<td>21 April</td>
<td>Dr M. Arroyo Kuribrelia</td>
</tr>
<tr>
<td>34th meeting of the IATA Live Animals and Perishables Board</td>
<td>Frankfurt, Germany</td>
<td>21–22 April</td>
<td>Dr D. Belton</td>
</tr>
<tr>
<td>FAO/OIE Inter-Regional Conference (Horn of Africa–Middle East) on ‘Rift Valley Fever: New Options for Trade, Prevention and Control’</td>
<td>Djibouti, Djibouti</td>
<td>21–23 April</td>
<td>Dr S. Münstermann, Dr G.J. Torres Peñalver, Dr A. Ripani, Dr F. Bastiaensen, Ms G. Omwega, Ms L. Ndungu, Dr S. de La Rocque, Dr G. Yehia, Dr X. Pacholek &amp; Ms R. Rick</td>
</tr>
<tr>
<td>Training on occupational health and safety for veterinary diagnostic laboratory</td>
<td>Bangkok, Thailand</td>
<td>21–23 April</td>
<td>Dr R. Abla, Dr P. Matayompong, Ms C. Dy &amp; Dr S. Zaari</td>
</tr>
</tbody>
</table>
### meetings and visits

#### April 2015 (contd)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting with the DG SANTE (G3) and TAIEX on stray dog population management</td>
<td>Brussels, Belgium</td>
<td>22 April</td>
<td>Dr N. Leboucq</td>
</tr>
<tr>
<td>1st meeting of the G7 Global Partnership against the Spread of Weapons and Materials of Mass Destruction</td>
<td>Munich, Germany</td>
<td>22–23 April</td>
<td>Dr K. Hamilton</td>
</tr>
<tr>
<td>10th CaribVET Steering Committee Meeting</td>
<td>Capesterre-Belle-Eau, Guadeloupe, France</td>
<td>22–23 April</td>
<td>Dr M. Arroyo Kuribreña</td>
</tr>
<tr>
<td>Follow-up of the harmonisation of the veterinary drug registration meeting</td>
<td>Gaborone, Botswana</td>
<td>23 April</td>
<td>Dr M. Letshwenyo</td>
</tr>
<tr>
<td>GHSA teleconference on ‘Antimicrobial Resistance’ (‘Prevent-1’) Action Package</td>
<td>Rome, Italy</td>
<td>23 April</td>
<td>Dr S. Corning</td>
</tr>
<tr>
<td>3rd Annual Meeting: Livestock Environmental Assessment and Performance (LEAP) Partnership</td>
<td>FAO Headquarters, Rome, Italy</td>
<td>23 April</td>
<td>Dr S. Corning</td>
</tr>
<tr>
<td>62nd CIC General Assembly</td>
<td>Prawets, Bulgaria</td>
<td>23–24 April</td>
<td>Dr B. Vallat, Prof. N.T. Belev &amp; Ms R. Kostrova</td>
</tr>
<tr>
<td>41st EuFMD General Session</td>
<td>Rome, Italy</td>
<td>23–24 April</td>
<td>Dr J. Domenech</td>
</tr>
<tr>
<td>15th Meeting of the CARICOM Chief Veterinary Officers</td>
<td>Capesterre-Belle-Eau, Guadeloupe, France</td>
<td>24 April</td>
<td>Dr M. Arroyo Kuribreña</td>
</tr>
<tr>
<td>Evaluation mission in the new livestock export quarantine ‘the Berbera United Quarantine’</td>
<td>Berbera, Somaliland Somalia</td>
<td>24 April</td>
<td>Dr P. Bastiaensen &amp; Dr G. Yehia</td>
</tr>
<tr>
<td>1st Antimicrobial Resistance Regional Steering Committee and Task Force Meetings</td>
<td>WHO Regional Office, Cairo, Egypt</td>
<td>26–28 April</td>
<td>Dr G. Yehia</td>
</tr>
<tr>
<td>Plenary Meeting of the Joint Health, Agriculture and Food Group (JHAFG) in the Euro-Atlantic Partnership Council (EAPC), North Atlantic Treaty Organization (NATO)</td>
<td>Brussels, Belgium</td>
<td>27–28 April</td>
<td>Dr S. de La Rocque</td>
</tr>
<tr>
<td>Regional workshop on MERS-CoV and ‘One Health’ concept</td>
<td>Doha, Qatar</td>
<td>27–29 April</td>
<td>Dr G. Yehia, Dr X. Pacholek &amp; Dr M. El Harrak</td>
</tr>
<tr>
<td>Codex Committee on Residues of Veterinary Drugs in Food</td>
<td>San Jose, Costa Rica</td>
<td>27 April – 1 May</td>
<td>Dr B. Freischem</td>
</tr>
<tr>
<td>Preparatory meeting for the organisation of an OIE regional seminar on the role of veterinary para-professionals and veterinarians in Africa, to be held in South Africa in September 2015</td>
<td>Pretoria, South Africa</td>
<td>28 April</td>
<td>Dr P. Bastiaensen</td>
</tr>
<tr>
<td>Sub-regional meeting on antimicrobial resistance for OIE Delegates, OIE National Focal Points for Veterinary Products and the Ministries of Health from MERCOSUR</td>
<td>Buenos Aires, Argentina</td>
<td>28–29 April</td>
<td>Dr E. Erlacher-Vindel, Dr L.O. Barcos, Dr M. Minassian &amp; Dr M. Arroyo Kuribreña</td>
</tr>
<tr>
<td>6th Regional FMD West Eurasia Roadmap Meeting</td>
<td>Almaty, Kazakhstan</td>
<td>28–30 April</td>
<td>Dr J. Domenech, Dr L. Weber-Vintzel, Prof. K. Lukauskas, Dr N. Leboucq &amp; Dr M. Taitubayev</td>
</tr>
<tr>
<td>OIE Sub-Regional Workshop on the PVS Pathway</td>
<td>Bali, Indonesia</td>
<td>28–30 April</td>
<td>Dr F. Caya, Dr H. Kugita, Dr Y. Aoyama, Dr L. Liu, Dr R. Abila, Dr P. Matayompong, Ms C. Dy, Dr S. Zaari &amp; Ms O. Benjaviebjhaisan</td>
</tr>
<tr>
<td>Law Enforcement and Veterinary International Conference (LEVIC), organised by INTERPOL</td>
<td>Lyon, France</td>
<td>29–30 April</td>
<td>Dr K. Hamilton</td>
</tr>
<tr>
<td>Title of the event</td>
<td>Place</td>
<td>Date</td>
<td>Participants</td>
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<tr>
<td>Mission to assist and supervise the national FMD laboratory staff in the adaptation and establishment of Liquid Phase Blocking ELISA, which will be used as standard serological test for the Northern Laos FMD control project post-vaccination monitoring field samples</td>
<td>Vientiane, Laos</td>
<td>3–9 May</td>
<td>Dr B. Verin</td>
</tr>
<tr>
<td>EC seminar for veterinary students</td>
<td>Brussels, Belgium</td>
<td>4 May</td>
<td>Dr N. Leboucq</td>
</tr>
<tr>
<td>1st COMESA Steering Committee Meeting on the ‘Breaking barriers, facilitating trade’ project, funded by STDF and implemented by CABI</td>
<td>Lusaka, Zambia</td>
<td>4 May</td>
<td>Dr P. Bastiaensen</td>
</tr>
<tr>
<td>AU-IBAR/PAVS annual CVOs meeting in preparation of the 83rd General Session of the OIE</td>
<td>Nairobi, Kenya</td>
<td>4–6 May</td>
<td>Dr K. Tounkara, Dr W. Masiga &amp; Dr E. Bonbon</td>
</tr>
<tr>
<td>Conference on Wildlife: “Health and species protection: Converging or diverging objectives?”, organised by EC</td>
<td>Brussels, Belgium</td>
<td>5 May</td>
<td>Dr B. Vallat</td>
</tr>
<tr>
<td>4th International Scientific Meeting on MERS-CoV, organised by WHO-EMRO</td>
<td>Cairo, Egypt</td>
<td>5–6 May</td>
<td>Dr D. Visser &amp; Dr G. Yehia</td>
</tr>
<tr>
<td>4th Steering Group Meeting of the OIE Regional Platform on Animal Welfare for Europe</td>
<td>Belgrade, Serbia</td>
<td>5–6 May</td>
<td>Dr K. Schwabenbauer, Dr R. Kolesar, Dr L.H. Stuardo Escobar, Prof. N.T. Belev, Dr E. Panina, Dr N. Leboucq &amp; Dr S. Ralchev</td>
</tr>
<tr>
<td>8th Annual Meeting of the Partners for Rabies Prevention (PRP)</td>
<td>Wolfsberg, Switzerland</td>
<td>5–7 May</td>
<td>Dr G.J. Torres Peñalver</td>
</tr>
<tr>
<td>OIE PVS training seminar for public sector veterinarians</td>
<td>Bogor, Indonesia</td>
<td>5–7 May</td>
<td>Dr R. Abila, Dr S. Zaari, Dr J. Weaver &amp; Dr E. Arnaldo Leon</td>
</tr>
<tr>
<td>Joint ICPALD/WTO Training on SPS and TBT Agreements</td>
<td>Nairobi, Kenya</td>
<td>5–8 May</td>
<td>Dr E. Bonbon</td>
</tr>
<tr>
<td>2nd regional meeting of animal welfare experts</td>
<td>Terme Tuhelj, Croatia</td>
<td>6–7 May</td>
<td>Dr L.H. Stuardo Escobar</td>
</tr>
<tr>
<td>2nd joint OIE/FEI/IFHA technical meeting for the implementation of the HHP concept</td>
<td>Lausanne, Switzerland</td>
<td>6–7 May</td>
<td>Dr B. Evans, Dr S. Münstermann &amp; Dr M. Dominguez</td>
</tr>
<tr>
<td>Mid-term meeting of the VMERGE project</td>
<td>Rome, Italy</td>
<td>6–7 May</td>
<td>Dr J. Domenech</td>
</tr>
<tr>
<td>Launch of the Agriculture and Livestock National Support Plan for Brazil</td>
<td>Brasilia, Brazil</td>
<td>6–7 May</td>
<td>Dr L.O. Barcos</td>
</tr>
<tr>
<td>CCFH Physical Working Group Meeting on the proposed draft guidelines for the control of non-typhoidal Salmonella spp. in beef and pork meat</td>
<td>Brussels, Belgium</td>
<td>6–8 May</td>
<td>Dr G. Mylrea</td>
</tr>
<tr>
<td>GHSA meeting on ‘Step towards regional strategic collaboration in Asia-Pacific on workforce development, national laboratory system strengthening and antimicrobial resistance prevention to respond global challenges’</td>
<td>Bangkok, Thailand</td>
<td>6–8 May</td>
<td>Dr H. Kugita, Dr R. Abila, Dr M.J. Gordencillo, Dr P. Matayompong, Ms C. Dy &amp; Ms O. Benjavejhaibain</td>
</tr>
<tr>
<td>Pan-American Congress of Veterinary Sciences (PANVET)</td>
<td>Buenos Aires, Argentina</td>
<td>7 May</td>
<td>Dr M. Minassian &amp; Dr S. Kahn</td>
</tr>
<tr>
<td>AU-IBAR Stakeholders Meeting to validate the LiDeSA results/M&amp;E and action planning frameworks</td>
<td>Nairobi, Kenya</td>
<td>7–9 May</td>
<td>Dr W. Masiga</td>
</tr>
<tr>
<td>Workshop for the development of national FMD control programme</td>
<td>Hanoi, Vietnam</td>
<td>11–12 May</td>
<td>Dr R. Abila, Dr P. Widders &amp; Dr K. Kukreja</td>
</tr>
<tr>
<td>8th meeting of the Global Microbial Identifier (GMI), including a Steering Committee Meeting</td>
<td>Beijing, P.R. China</td>
<td>11–13 May</td>
<td>Dr B. Freischem</td>
</tr>
<tr>
<td>Workshop on ‘Strengthening capacities of the Libyan Veterinary Services for the control of avian influenza’</td>
<td>Tunis, Tunisia</td>
<td>11–13 May</td>
<td>Dr R. Bouguendour, Dr A. Ripani &amp; Dr J. Merot</td>
</tr>
</tbody>
</table>
meetings and visits

May 2015 (contd)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th (Virtual) Steering Committee Meeting of the EU-funded ICIPE and AU-IBAR</td>
<td>Kasarani, Kenya</td>
<td>11–14 May</td>
<td>Dr. F. Diaz</td>
</tr>
<tr>
<td>Bee Health Project, hosted by ICIPE</td>
<td></td>
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</tr>
<tr>
<td>Meeting with Mr Abdoulaye Diop, Minister of Foreign Affairs, African Integration</td>
<td>Bamako, Mali</td>
<td>12 May</td>
<td>Dr. B. Vallat, Dr. Y. Samaké, Dr. K. Tounkara &amp; Dr. D. Bourzat</td>
</tr>
<tr>
<td>and International Cooperation of Mali</td>
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<tr>
<td>Meeting with Mr Bocary Treta, Minister of Rural Development of Mali</td>
<td>Bamako, Mali</td>
<td>12 May</td>
<td>Dr. B. Vallat, Dr. Y. Samaké, Dr. K. Tounkara &amp; Dr. D. Bourzat</td>
</tr>
<tr>
<td>PRAPS Teleconference</td>
<td>OIE Headquarters, Paris, France</td>
<td>12 May</td>
<td>Dr. A. Dehove</td>
</tr>
<tr>
<td>Final Workshop of the European ‘Rapidia-Field’ (Rapid Diagnostics for the Field)</td>
<td>Madrid, Spain</td>
<td>12 May</td>
<td>Dr. E. Erlacher-Vindel</td>
</tr>
<tr>
<td>Project</td>
<td></td>
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<tr>
<td>Workshop on ‘Improving rural livelihoods through sustainable animal disease</td>
<td>Gaborone, Botswana</td>
<td>12 May</td>
<td>Dr. M. Letschwenyo</td>
</tr>
<tr>
<td>control strategies’, hosted by the Botswana Vaccine Institute and the Barclays</td>
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<tr>
<td>Bank of Botswana</td>
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<tr>
<td>Joint FAO/WHO Expert Meeting on hazards associated with animal feed</td>
<td>Rome, Italy</td>
<td>12–15 May</td>
<td>Dr. T. Ishibashi</td>
</tr>
<tr>
<td>Meeting with Mr Ibrahim Boubacar Keita, President of the Republic of Mali</td>
<td>Bamako, Mali</td>
<td>13 May</td>
<td>Dr. B. Vallat, Dr. Y. Samaké, Dr. K. Tounkara &amp; Dr. D. Bourzat</td>
</tr>
<tr>
<td>OIE information seminar for veterinary educational establishments</td>
<td>Los Baños, Los</td>
<td>14 May</td>
<td>Dr. R. Abila, Dr. P. Matayompong &amp; Dr. S. Zaari</td>
</tr>
<tr>
<td>Assignment on livestock diagnostic unmet needs in Africa</td>
<td>OIE Headquarters, Paris, France</td>
<td>15 May</td>
<td>Dr. N. Mapitse</td>
</tr>
<tr>
<td>70th anniversary of the establishment of the National Veterinary Research</td>
<td>Pulawy, Poland</td>
<td>15 May</td>
<td>Prof. K. Lukauskas</td>
</tr>
<tr>
<td>Institute</td>
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</tr>
<tr>
<td>OIE information seminar for practicing veterinarians</td>
<td>Quezon City, the Philippines</td>
<td>15 May</td>
<td>Dr. R. Abila, Dr. P. Matayompong &amp; Dr. S. Zaari</td>
</tr>
<tr>
<td>GHSA teleconference on ‘Biosafety and Biosecurity’ (‘Prevent-3’) Action Package</td>
<td>Rome, Italy</td>
<td>15 May</td>
<td>Dr. S. Corning</td>
</tr>
<tr>
<td>68th WHO World Health Assembly</td>
<td>Geneva, Switzerland</td>
<td>18–26 May</td>
<td>Dr. S. de La Roque</td>
</tr>
<tr>
<td>OIE/EC meeting on ADIS project</td>
<td>OIE Headquarters, Paris, France</td>
<td>20 May</td>
<td>Dr. B. Vallat, Dr. A. Dehove, Ms. E. Tagliano, Dr. D. Chaisemartin &amp; Dr. P. Cáceres Soto</td>
</tr>
<tr>
<td>9th Management Committee Meeting of the OIE World Animal Health and Welfare Fund</td>
<td>OIE Headquarters, Paris, France</td>
<td>20 May</td>
<td>Dr. B. Vallat, Dr. A. Dehove, Ms. E. Tagliano, Ms. V. Wong, Ms. S. Riviere &amp; Mr. R. Lemesnager</td>
</tr>
<tr>
<td>OIE Council’s Meeting</td>
<td>OIE Headquarters, Paris, France</td>
<td>21–22 May</td>
<td>Dr. K. Schwabenbauer, Dr. B.M. Modisane, Dr. C.A. Correa Messuti, Dr. B. Vallat, Dr. M. Eloit, Dr. B. Evans, Dr. C. Bertrand-Ferrandis, Mr. R. de Souza, Ms. A. Weng, Mr. G. Seigneurin, Dr. M. Schipp, Dr. E. Nepoklonov, Dr. N. Kauta, Dr. T. Kewashima &amp; Dr. J. Clifford</td>
</tr>
<tr>
<td>WWA/WMA Global Conference on One Health: ‘Drivers towards One Health:</td>
<td>Madrid, Spain</td>
<td>21–22 May</td>
<td>Dr. G.J. Torres Peihalver</td>
</tr>
<tr>
<td>Strengthening collaboration between physicians and veterinarians’</td>
<td></td>
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</tr>
<tr>
<td>3rd session of the OIE ‘Train the Trainers’ Regional Workshop on animal welfare</td>
<td>Tbilisi, Georgia</td>
<td>21–22 May</td>
<td>Dr. R. Kolesar, Dr. T. Grudnik &amp; Dr. S. Raichev</td>
</tr>
<tr>
<td>during transport and slaughter</td>
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<tr>
<td>Disease Management</td>
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</tbody>
</table>
### May 2015 (contd)

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIE Regional Information Seminar for Recently Appointed OIE Delegates</td>
<td>OIE Headquarters, Paris, France</td>
<td>23 May</td>
<td>Dr A. Thiermann, Ms O. Ncube, Ms M. Domingo Monsonis, Dr Y. Farhi, Ms S. Rivière, Mr R. de Souza, Dr P. Caceres Soto, Dr N. Mapite, Dr P. Tizzani, Dr P. Pozzetti, Dr G. Mylrea, Dr T. Ishibashi, Dr J. M. Lee, Dr B. Evans, Dr M. Dominguez, Dr M. Ramos, Dr K. Matsuo, Dr F. Caya, Dr M.E. González Ortiz, Ms E. Marzec, Dr S. Pupulin, Dr P.A. Belmar von Kretschmann, Ms C. Loi, Dr Y. Samaké, Dr K. Tounkara, Dr M. Letshwenyo, Dr R. Bouguedour, Dr J. Merot, Dr W. Masiga, Dr L.O. Barcos, Dr M. Minassian, Dr M. Arroyo Kuribreña, Dr H. Kugita, Dr Y. Oh, Dr Y. Aoyama, Dr B. Basan, Dr L. Liu, Dr R. Abila, Dr P. Widders, Dr M.I. Gordencillo, Dr P. Matayompong, Prof. N.T. Belev, Prof. K. Lukauskas, Dr M. Tartubayev, Dr A. Kozhumratov, Dr G. Yehia, Dr X. Pacholek &amp; Dr A. El Romeh</td>
</tr>
<tr>
<td>83rd General Session of the World Assembly of Delegates of the OIE</td>
<td>Paris, France</td>
<td>24–29 May</td>
<td>OIE Headquarters’ staff and OIE Regional and Sub-Regional Representatives</td>
</tr>
<tr>
<td>Follow-up mission to analyse the progress of the adaptation and establishment of Liquid Phase Blocking ELISA (LPBELISA) which will be used as standard serological test for the Northern Laos FMD control project post vaccination monitoring field samples</td>
<td>Vientiane, Laos</td>
<td>24–30 May</td>
<td>Dr B. Verin</td>
</tr>
<tr>
<td>PRAPS meeting with OIE Delegates</td>
<td>Paris, France</td>
<td>26 May</td>
<td>Dr A. Dehove, Ms E. Tagliaro &amp; Ms S. Rivière</td>
</tr>
<tr>
<td>Signing ceremony for a twinning contract between a French and a Ukrainian Veterinary Educational Establishments</td>
<td>Paris, France</td>
<td>27 May</td>
<td>Dr A. Dehove, Ms V. Wong &amp; Ms S. Rivière</td>
</tr>
<tr>
<td>Satellite meeting of the Veterinary Statutory Bodies (VSBs) for French-speaking countries</td>
<td>Paris, France</td>
<td>27 May</td>
<td>Dr M. Petitclerc, Dr D. Bourzat &amp; Dr R. Bouguedour</td>
</tr>
<tr>
<td>GF-TADs Regional Steering Committee Meeting on key performance indicators</td>
<td>Paris, France</td>
<td>28 May</td>
<td>Dr F. Caya, Dr M.E. González Ortiz, Dr K. Tounkara, Dr M. Minassian, Dr M. Arroyo Kuribreña, Dr H. Kugita, Dr Y. Aoyama, Dr N. Leboucq, Dr G. Yehia, Dr X. Pacholek, Dr A. El Romeh &amp; Dr G. Murray</td>
</tr>
</tbody>
</table>

### June 2015

<table>
<thead>
<tr>
<th>Title of the event</th>
<th>Place</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFSA Scientific Panel on Animal Health and Welfare – 3rd Working Group Meeting on Healthy-B</td>
<td>Brussels, Belgium</td>
<td>1 June</td>
<td>Dr F. Diaz</td>
</tr>
<tr>
<td>2nd Annual EAT Stockholm Food Forum 2015</td>
<td>Stockholm, Sweden</td>
<td>1–2 June</td>
<td>Dr C. Bertrand-Ferrandis</td>
</tr>
<tr>
<td>5th Task Force Meeting for OIE World Fund results indicators</td>
<td>OIE Headquarters, Paris, France</td>
<td>2 June</td>
<td>Dr A. Dehove &amp; Ms V. Wong</td>
</tr>
<tr>
<td>One-day think-tank on vector-borne diseases</td>
<td>Brussels, Belgium</td>
<td>2 June</td>
<td>Dr G.J. Torres Perialver</td>
</tr>
<tr>
<td>Preparatory meeting with WHO for the organisation of the conference on rabies to be held in December 2015</td>
<td>WHO Headquarters, Geneva, Switzerland</td>
<td>2–3 June</td>
<td>Dr D. Chaisemartin &amp; Ms I. Contreras Arias</td>
</tr>
<tr>
<td>21st Joint Annual Meeting of the EU Reference Laboratories for Avian Influenza and Newcastle disease</td>
<td>Budapest (Hungary)</td>
<td>2–4 June</td>
<td>Dr G. Pavade</td>
</tr>
<tr>
<td>Training course on outbreak investigation and management</td>
<td>Siem Riep, Cambodia</td>
<td>2–5 June</td>
<td>Ms C. Dy, Dr C. Miller &amp; Dr S. Zaari</td>
</tr>
<tr>
<td>FVE Seminar on ‘Stray Dogs – Present and future’</td>
<td>Iagi, Romania</td>
<td>3 June</td>
<td>Dr N. Leboucq</td>
</tr>
<tr>
<td>Mediterranean Fair for Animal Production and Agri-Business (PAMEO 2015) – 10th Dick-Ceva Poultry Scientific Day</td>
<td>hammamet, Tunisia</td>
<td>3 June</td>
<td>Dr R. Bouguedour, Dr A. Ripani &amp; Dr J. Merot</td>
</tr>
<tr>
<td>Course on peste des petits ruminants, contagious bovine pleuropneumonia and epidemiological surveillance, for veterinarians and veterinary paraprofessionals in charge of livestock and animal health programmes, organised by the ICRC of West Africa</td>
<td>Abidjan, Côte d’Ivoire</td>
<td>4–5 June</td>
<td>Dr D. Bourzat</td>
</tr>
<tr>
<td>Title of the event</td>
<td>Place</td>
<td>Date</td>
<td>Participants</td>
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<tr>
<td>GHSA Country Assessment Tool Workshop</td>
<td>Helsinki, Finland</td>
<td>4–5 June</td>
<td>Dr S. Corning</td>
</tr>
<tr>
<td>FVE Spring General Assembly</td>
<td>Iaşi, Romania</td>
<td>5–6 June</td>
<td>Dr N. Leboucq</td>
</tr>
<tr>
<td>WSAVA One Health Committee Meeting</td>
<td>Indianapolis, United States</td>
<td>7–9 June</td>
<td>Dr A. Thiermann</td>
</tr>
<tr>
<td>4th Regional Workshop of the Regional Task Force on Pastoralism of the PRAPs</td>
<td>Niamey, Niger</td>
<td>8–9 June</td>
<td>Dr Y. Samaké, Dr K. Tounkara &amp; Dr D. Bourzat</td>
</tr>
<tr>
<td>Training session on laboratory animals (Sidi Thabet National Veterinary School, Tunisia and ICLAS) – Graduation ceremony</td>
<td>Tunis, Tunisia</td>
<td>8–10 June</td>
<td>Dr R. Bouguedour</td>
</tr>
<tr>
<td>Regional Seminar for UMA Member States on legislative drafting for regional harmonisation of laws in the veterinary domain. Technical item: Animal disease control and management of animal movements</td>
<td>Tunis, Tunisia</td>
<td>8–12 June</td>
<td>Dr S. Pupulin, Dr M. Petitclerc, Dr R. Bouguedour, Dr A. Ripani &amp; Dr J. Mérot</td>
</tr>
<tr>
<td>Information session with stakeholders on the EFSA guidance on assessment criteria for stunning interventions</td>
<td>Brussels, Belgium</td>
<td>9 June</td>
<td>Dr R. Kolesar</td>
</tr>
<tr>
<td>Meeting on livestock disease control</td>
<td>Seoul, Rep. of Korea</td>
<td>9–10 June</td>
<td>Dr B. Evans</td>
</tr>
<tr>
<td>4th Coordination Committee Meeting and 2nd FMD Scientific Meeting for East Asia, under the OIE/JTF Project on FMD Control in Asia</td>
<td>Tokyo, Japan</td>
<td>9–11 June</td>
<td>Dr P. Cáceres Soto, Dr H. Kugita, Dr Y. Oh, Dr Y. Aoyama, Dr B. Basan, Dr L. Liu, Dr R. Abila, Dr P. Widders, Dr K. de Clercq, Dr S. Kamolsiripichaiarmor, Dr J. M. Sánchez-Vizcaino &amp; Dr Z. Wang</td>
</tr>
<tr>
<td>1st Pan-African Rabies Control Network (PARACON) Conference, organised by OARC</td>
<td>Johannesburg, South Africa</td>
<td>9–11 June</td>
<td>Dr G.J. Torres Peñalver, Dr M. Letshwenyo &amp; Dr P. Bastiaensen</td>
</tr>
<tr>
<td>EC Seminar on ‘Animal welfare as a way to preserve diversity and quality in animal production’</td>
<td>Milan, Italy</td>
<td>10 June</td>
<td>Dr M. Eliot</td>
</tr>
<tr>
<td>6th WHO-AGISAR Meeting</td>
<td>Seoul, Rep. of Korea</td>
<td>10–12 June</td>
<td>Dr E. Erlacher-Vindel, Dr G. Moulin &amp; Prof. J. Acar</td>
</tr>
<tr>
<td>IFAH–Europe Conference 2015: ‘Healthy animals, healthy food, a healthy future’</td>
<td>Brussels, Belgium</td>
<td>11 June</td>
<td>Dr S. Ralchev</td>
</tr>
<tr>
<td>French–Mexican Forum for Public Health and Medical Innovation</td>
<td>Mexico City, Mexico</td>
<td>11–12 June</td>
<td>Dr M. Arroyo Kuribeña</td>
</tr>
<tr>
<td>125th and 126th Sessions of the Customs Co-operation Council of the WCO and signing of the Agreement between WCO and OIE</td>
<td>Brussels, Belgium</td>
<td>11–13 June</td>
<td>Dr B. Vallat &amp; Dr N. Leboucq</td>
</tr>
<tr>
<td>1st Steering Committee Meeting for the development of a prioritisation and categorisation tool for aquatic animal diseases</td>
<td>OIE Headquarters, Paris, France</td>
<td>12 June</td>
<td>Dr A. Dehove, Ms S. Riviére &amp; Dr N. Mapitse</td>
</tr>
<tr>
<td>Regional Emergency Consultation for Prevention and Control of H5N1 Highly Pathogenic Avian Influenza in West and Central Africa</td>
<td>ECOWAS Headquarters, Abuja, Nigeria</td>
<td>15–16 June</td>
<td>Dr K. Tounkara</td>
</tr>
<tr>
<td>17th WAVLD International Symposium</td>
<td>Saskatoon, Canada</td>
<td>15–18 June</td>
<td>Dr E. Erlacher-Vindel, Ms S. Linnane &amp; Dr M. Minassian</td>
</tr>
<tr>
<td>17th Meeting of the IAEA’s Standing Advisory Group on Nuclear Applications</td>
<td>IAEA Headquarters, Vienna, Austria</td>
<td>16 June</td>
<td>Dr K. Tounkara</td>
</tr>
<tr>
<td>Workshop on Child Protection</td>
<td>Bangkok, Thailand</td>
<td>16 June</td>
<td>Dr R. Abila, Dr P. Widders, Dr M.J. Gordoncillo, Dr P. Matayompong, Ms C. Dy, Dr K. Kukreja, Dr C. Miller, Ms M. Ruengjumroonmuth, Ms P. Srithep &amp; Ms O. Benjaveshihasan</td>
</tr>
<tr>
<td>Training course on animal welfare in pig production, in the framework of the BTSF initiative</td>
<td>Herning, Denmark</td>
<td>16–19 June</td>
<td>Dr I.H. Stuardo Escobar</td>
</tr>
<tr>
<td>11th OIE Seminar on: ‘New Diagnostic Technologies and International Standard Setting’, during the 17th WAVLD International Symposium</td>
<td>Saskatoon, Canada</td>
<td>17 June</td>
<td>Dr E. Erlacher-Vindel, Ms S. Linnane &amp; Dr M. Minassian</td>
</tr>
<tr>
<td>GHSA teleconference on ‘Biosafety and Biosecurity’ (‘Prevent-3’) Action Package</td>
<td>Rome, Italy</td>
<td>17 June</td>
<td>Dr S. Corning</td>
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</table>
## June 2015 (contd)

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<tr>
<th>Title of the event</th>
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<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training on occupational health and safety for veterinary diagnostic laboratory</td>
<td>Yangon, Myanmar</td>
<td>17–19 June</td>
<td>Dr R. Abila, Dr P. Matayompong &amp; Dr S. Zaari</td>
</tr>
<tr>
<td>Tripartite (FAO/OIE/WHO) teleconference</td>
<td>OIE Headquarters, Paris, France</td>
<td>18 June</td>
<td>Dr B. Vallat, Dr B. Evans, Dr A. Dehove &amp; Dr D. Chaisemartin</td>
</tr>
<tr>
<td>UN/CEFACT meeting: ‘Computerized data of analysis laboratories’</td>
<td>OIE Headquarters, Paris, France</td>
<td>18 June</td>
<td>Dr B. Vallat, Dr D. Chaisemartin, Dr A. Dehove, Dr P. Cáceres Soto, Dr F. Diaz &amp; Dr L. Awada</td>
</tr>
<tr>
<td>OIE information seminar for practicing veterinarians</td>
<td>Yangon, Myanmar</td>
<td>18 June</td>
<td>Dr R. Abila, Dr P. Matayompong &amp; Dr S. Zaari</td>
</tr>
<tr>
<td>7th International Symposium on Emerging and Re-Emerging Pig Diseases</td>
<td>Kyoto, Japan</td>
<td>21–24 June</td>
<td>Dr B. Vallat, Dr H. Kugita, Dr Y. Aoyama, Dr B. Basan &amp; Dr T. Kawashima</td>
</tr>
<tr>
<td>Teleconference with the OIE Sub-Regional Representation for Southern Africa</td>
<td>OIE Headquarters, Paris, France</td>
<td>22 June</td>
<td>Dr N. Mapitse</td>
</tr>
<tr>
<td>International Conference on Avian Influenza and Poultry Trade</td>
<td>Baltimore, Maryland, United States</td>
<td>22–24 June</td>
<td>Dr B. Evans</td>
</tr>
<tr>
<td>Meeting with the Dean of the Faculty of Agriculture of the University of Tokyo</td>
<td>Tokyo, Japan</td>
<td>23 June</td>
<td>Dr B. Vallat, Dr H. Kugita &amp; Dr T. Kawashima</td>
</tr>
<tr>
<td>Meeting with the heads of the OIE Collaborating Centre for Food Safety</td>
<td>Tokyo, Japan</td>
<td>23 June</td>
<td>Dr B. Vallat, Dr H. Kugita &amp; Dr T. Kawashima</td>
</tr>
<tr>
<td>Visit to the OIE Regional Representation for Asia and the Pacific</td>
<td>Tokyo, Japan</td>
<td>23 June</td>
<td>Dr B. Vallat, Dr H. Kugita &amp; Dr T. Kawashima</td>
</tr>
<tr>
<td>GHSA meeting at the French Ministry of Social Affairs, Health and Women’s rights</td>
<td>Paris, France</td>
<td>23 June</td>
<td>Dr A. Dehove</td>
</tr>
<tr>
<td>Meeting with Mr Barnaby Joyce, Minister of Agriculture of Australia</td>
<td>Canberra, Australia</td>
<td>24 June</td>
<td>Dr B. Vallat, Dr G. Murray &amp; Dr M. Schipp</td>
</tr>
<tr>
<td>Meeting with Mr Daryl Quinnivan, Secretary of the Department of Agriculture of Australia</td>
<td>Canberra, Australia</td>
<td>24 June</td>
<td>Dr B. Vallat, Dr G. Murray &amp; Dr M. Schipp</td>
</tr>
<tr>
<td>Meeting with the heads of the Australian Centre for International Agricultural Research (ACIAR)</td>
<td>Canberra, Australia</td>
<td>24 June</td>
<td>Dr B. Vallat, Dr G. Murray &amp; Dr M. Schipp</td>
</tr>
<tr>
<td>General Assembly of the World Renderers Organization (WRO)</td>
<td>Milan, Italy</td>
<td>24 June</td>
<td>Dr M. Eloit</td>
</tr>
<tr>
<td>FAO/OIE/WHO Tripartite meeting on disease information systems</td>
<td>OIE Headquarters, Paris, France</td>
<td>24 June</td>
<td>Dr A. Dehove &amp; Dr P. Cáceres Soto</td>
</tr>
<tr>
<td>Meeting with the OIE Reference Laboratory for African horse sickness to discuss the results of a proficiency test for different PCR protocols</td>
<td>Pirbright, United Kingdom</td>
<td>24 June</td>
<td>Dr S. Münstermann &amp; Dr A. Fooks</td>
</tr>
<tr>
<td>Meeting with the principals of the main confederations of livestock production and exportation</td>
<td>Canberra, Australia</td>
<td>25 June</td>
<td>Dr B. Vallat, Dr G. Murray &amp; Dr M. Schipp</td>
</tr>
<tr>
<td>Conference for the staff of Veterinary Services</td>
<td>Canberra, Australia</td>
<td>25 June</td>
<td>Dr B. Vallat, Dr G. Murray &amp; Dr M. Schipp</td>
</tr>
<tr>
<td>5th Steering Committee Meeting of the SMP-AH Project</td>
<td>Addis Ababa, Ethiopia</td>
<td>25 June</td>
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<td>GHSA teleconference on ‘Antimicrobial Resistance’ (‘Prevent-1’) Action Package</td>
<td>Rome, Italy</td>
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<td>Workshop on the implementation of the United Nations Security Council Resolution 1540 in Montenegro</td>
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<td>Meeting with the Secretary of the Department of Foreign Affairs and Trade and his staff</td>
<td>Canberra, Australia</td>
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<td>Marcy-l’Étoile, France</td>
<td>29 June</td>
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<td>5th Global Review of Aid for Trade: ‘Reducing Trade Costs for Inclusive, Sustainable Growth’</td>
<td>WTO Headquarters, Geneva, Switzerland</td>
<td>30 June</td>
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<td>OIE Global Conference on Biological Threat Reduction: ‘Building cooperation for efficient health and security systems worldwide’</td>
<td>Paris, France</td>
<td>30 June – 2 July</td>
<td>Dr B.M. Modisane, Dr B. Vallat, Dr A. Thiermann, Dr C. Bertrand-Ferrandis, Ms O. Ncube, Ms M. Domingo Monsonís, Dr Y. Farhi, Dr A. Dehove, Ms S. Rivière, Dr D. Chaisemartin, Ms I. Confreras Arias, Dr P. Cáceres Soto, Dr N. Mapitse, Dr M. Popovic, Ms N. Lambergeon, Dr L. Awada, Dr P. Tizzani, Dr P. Pozzetti, Dr L.H. Stuardo Escobar, Dr B. Evans, Dr E. Erlacher-Vindel, Dr J. Domenech, Dr S. Münstermann, Dr F. Diaz, Dr K. Hamilton, Dr J. Lasley, Dr M. Ramos, Dr G. Pavade, Dr D. Visser, Dr M.E. González Ortiz, Dr V. Sharandak, Dr D. Sherman, Dr Y. Samaké, Dr M. Letshwenyo, Dr R. Bouguedour, Dr A. Ripani, Dr L.O. Barcos, Dr M. Arroyo Kuribreña, Dr Y. Oh, Dr R. Abila, Prof. K. Lukauskas, Dr N. Leboucq, Dr S. de La Rocque, Dr M. Taitubayev, Dr G. Yehia, Dr E. Nepoklonov, Dr N. Kauta, Dr E. Bonbon, Dr S. Corning, Mr B. Flahault &amp; Ms T. Benicasa</td>
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Forensic epidemiology: how to conduct a disease investigation when criminal intent is suspected

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Keywords
Diagnostic – Forensic – Microbiology.
Diagnostic investigations that may involve legal concerns present a specific set of challenges to diagnosticians. Such legal concerns typically involve potential trade or financial issues and, therefore, it becomes of utmost importance for diagnostic laboratories to be able to document data to support their conclusions. This involves having readily available sample receipt and test records; validation data and standard operating procedures supporting the use and interpretation of the diagnostic tests employed; training and proficiency test records of staff, demonstrating their competency in running the selected tests; and quality control and calibration data demonstrating the proper functioning of test reagents, equipment and adequate incubation and/or sample storage conditions. In general such data and records support the integrity of diagnostic samples, validity of test results, and diagnostic conclusions. Operating under a national or international standard of quality control, such as ISO 17025, is an excellent way to prepare for effectively managing diagnostic investigations that may have legal implications.

In rare instances, there may be a need to investigate potential criminal liability in connection with an animal disease agent or outbreak investigation. Examples of such circumstances can include seized veterinary biologicals at an international border or from a clandestine laboratory, threatening messages associated with an animal disease outbreak, the suspicion or evidence of the intentional introduction of a disease agent or act of bioterrorism, or the outbreak of a rare or unusual high-consequence animal disease such as rinderpest, previously declared globally eradicated by the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) in 2011. A diagnostic or epidemiological investigation may uncover clues or evidence leading to an increased suspicion of criminal activity and a request for law enforcement assistance, thus adding a forensic component to an animal disease investigation. Alternatively, law enforcement may uncover evidence implicating an infectious disease agent during the course of a criminal investigation and may therefore request the assistance of Veterinary Services with the investigation. In these circumstances, diagnostic laboratories need to take special precautions, not only to support their diagnostic conclusions, which may be challenged in a court of law, but also to ensure the preservation of trace evidence potentially linking human
actions and individuals to animal disease agents or a disease outbreak. Such trace forensic evidence may include fingerprints, handwriting examples, hair, human DNA, biological materials, cultures, or any number of trace human, animal or environmental materials that can be used by forensic examiners to link people and places to events, in a process termed 'attribution'.

Combined forensic and diagnostic investigations present special challenges to both forensic examiners and diagnosticians alike. The linking of human trace evidence to disease agent detection is typically a key component of attribution. Included in this is the need to characterise human trace evidence and disease agents for the purposes of identifying individuals and pathogens and tracing the origins of pathogenic agents. Unfortunately, diagnostic laboratories typically lack the expertise and resources needed to recognise, identify and analyse trace human evidence for attribution. Likewise, forensic laboratories often lack the expertise and biosecurity capability needed to work with infectious animal disease agents for identification, characterisation and trace-back analyses. To ensure accurate findings and to explain or defend these in a court of law, it is vital to use well-accepted, standardised and scientifically validated methodologies. Therefore, the ideal arrangement is for diagnostic and forensic experts to work together. Diagnostic and forensic laboratories that foresee this potential need should develop working relationships before any potential biological threat occurs, in order to establish ‘concepts of operations’ to ensure that diagnostic, epidemiological and forensic missions are mutually respected and facilitated. Such concepts of operations should take into account that diagnostic and forensic investigations may have differing urgencies and priorities. Diagnostic and epidemiological investigations with the goal of preventing the spread of an infectious disease outbreak and restoring commercial production and trade may need to be conducted with greater urgency. In contrast, forensic investigations may require slower and more methodical methods with the primary objectives being to rule out or establish a crime and its attribution.

Laboratories engaged in these investigations must operate with the expectation that investigatory procedures and findings (forensic and diagnostic) may be challenged in a court of law. Because of unique sample-handling and communication needs, and since forensic investigations do not typically involve traditional clinical samples, there is a significant advantage to keeping forensic and diagnostic activities separate. One way to accomplish this is for the diagnostic laboratory to assign a small interdisciplinary team to train with forensic experts. The team may then work with forensic examiners on the rare occasions when such investigations are needed. Designating a small secure space within the diagnostic laboratory in advance for receiving and

Specialised expertise in infectious diseases and forensic analysis, along with the need for appropriate biocontainment can necessitate joint investigations between diagnostic laboratories and law enforcement.
Analysing evidence can also facilitate joint investigations. This space should contain a biosafety cabinet, fume hood, secure cold and room temperature storage for evidence, and ideally have sufficient bench space for forensic examiners to perform trace evidence analyses. Evidence may be consumed in testing; therefore, to preserve potentially valuable evidence, forensic and diagnostic experts must first work together to establish a sample analysis plan that defines all samples that must be tested and which tests need to be performed. This is best done immediately after the evidence is received and recorded and well before the samples are processed and tested.

The integrity of both evidence and samples is essential to being able to link test results and attribution. In this regard, a clear written chain of custody must be maintained for all evidence and for possibly associated diagnostic samples. This includes both primary evidence/samples and secondary samples, such as nucleic acids, proteins or cellular extracts which may be used in forensic and diagnostic testing. Typically, such secondary samples are taken from primary evidence to be analysed by the small diagnostic team, according to standard operating procedures. Limiting access to evidence and evidence-derived samples, work surfaces and other equipment simplifies the chain of custody and reduces the risk of evidence contamination. Sample contamination is of particular concern when it comes to the addition of extraneous trace pathogenic agents, human materials or bio-signatures; or to polymerase chain reaction- (PCR-) based procedures common to molecular detection, sequence characterisation and phylogenetic analyses used to identify individuals and pathogens; or in molecular epidemiology or trace-back analysis of pathogens. Cleaning procedures for work surfaces such as biosafety cabinets and key equipment need to be established and documented before the manipulation of evidence or samples at every step of the investigation. Such cleaning procedures can often be assessed by using PCR-based methods on aqueous swabs taken from key work surfaces.

Forensic investigations that require diagnostic expertise can indeed be complex and daunting; however, early engagement of law enforcement officials and forensic examiners in developing concepts of operations is perhaps the single most important action a diagnostic laboratory can take to proactively reduce the stress of such investigations. Concepts of operations should include mutually agreed guidelines for: initiating a joint investigation, maintaining sample integrity, developing a sample analysis plan, internal and external communications, and facilitating otherwise independent forensic, diagnostic and/or epidemiological missions. Joint mock investigation exercises are one method that can be used to test concepts of operations. In this regard, familiarising a small team of diagnostic staff with forensic concepts and likewise familiarising the forensic team with the diagnostic laboratory environment will further enhance the efficiency and success of such investigations. Mutual engagement before an animal disease or biological attack crisis can occur will no doubt ensure the efficiency and success of such investigations.
Update on efforts to keep the world free from rinderpest

The last known case of rinderpest was reported to have involved a buffalo in Kenya in 2001. Ten years later, after scrutinising surveillance data and in May 2011, the 79th General Session of the OIE declared the global eradication of rinderpest. This was a huge achievement for the animal health community; the first infectious animal disease, and only the second infectious disease after smallpox, to have been deliberately eradicated by humankind. The next, less glamorous task was to ensure that the world remained free from the disease.

Livestock populations are now especially vulnerable to rinderpest because vaccination has been banned and animals do not have naturally acquired immunity. Today, a rinderpest outbreak would spread quickly with severe consequences. These may well be exacerbated by delays in detection because farmers and veterinarians may not immediately suspect a disease which they believe to have been eradicated.

Although rinderpest virus no longer circulates in the animal kingdom, it can still be found in a number of laboratories and institutes across the world, held under varying degrees of biosecurity. This means that there is a real risk that rinderpest could be accidentally or intentionally re-introduced into the animal population. It should not be forgotten that the last ever case of smallpox in a person (1978) resulted from an accidental laboratory escape in the United Kingdom.

Anticipating these risks, the OIE has been working with the FAO to put a strategy in place which focuses on the safe keeping and progressive destruction of remaining stocks of potentially infectious rinderpest virus material.

On declaring global freedom from rinderpest in 2011, the OIE World Assembly of Delegates adopted a Resolution agreeing to destroy the remaining stocks of rinderpest virus and vaccine or to ensure that they were safely stored in a minimum number of approved facilities. Research involving the handling or manipulation of rinderpest virus was also forbidden unless approved by the OIE and FAO. Subsequent Resolutions have established a framework for designating a minimum number of facilities as approved to hold rinderpest material, and an update to the OIE Terrestrial Animal Health Code has made it obligatory for OIE Member Countries to report to the OIE annually on the status of any remaining rinderpest virus and vaccines in their countries.

The OIE has been working closely with its Member Countries to take forward these actions. In 2015, the OIE World Assembly agreed to designate five facilities (in Ethiopia, Japan, the United Kingdom and the United States of America) as being approved to hold rinderpest material. This followed a review of applications from these facilities by the OIE/FAO Rinderpest Joint Advisory Committee (an independent technical advisory body) and site inspections of each of the facilities by experts. The facilities have agreed to hold stocks of rinderpest virus and vaccine on behalf of other countries.

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Site inspection at the African Union–Panafrican Veterinary Vaccine Centre (AU–PANVAC)

Holding facility at AU–PANVAC
The best way to make sure that rinderpest remains confined to the history books is to ensure the total destruction of all remaining virus. The OIE aims to facilitate this with a project called ‘Sequence and Destroy’. Using funds provided by its donors, the OIE is supporting eligible laboratories to sequence the entire genomes of selected rinderpest virus isolates before their destruction. This will ensure that historical data are not lost, while the risky infectious material is. If, for any reason, humanity needs to reassemble a rinderpest virus in the future, it will be possible to do this from the sequence data.

The response to the first two official surveys on remaining stocks of rinderpest material has been excellent, with 97% and 100% of OIE Member Countries reporting in 2014 and 2015, respectively. This means that all OIE Member Countries (without exception) have fulfilled their obligation to report to the OIE; two additional countries, which are not OIE Member Countries, also reported in 2014. The results from these surveys indicate that a total of 27 facilities in 24 countries still hold potentially infectious rinderpest material under varying biosecurity levels. Although the international community should be commended on its transparency, these results highlight the fact that rinderpest virus is still kept in an unacceptably high number of facilities. More action needs to be taken to destroy as much as possible of the stocks and consolidate the remainder to the approved holding facilities. It is possible that some countries hold rinderpest virus without their national Veterinary Services being aware; for example, samples may be poorly labelled or held in a facility not directly affiliated to the national Veterinary Services, such as a private or academic institute. It is therefore vital that countries continue to report on this matter every year so that the global situation can be closely monitored.
Livestock trade in the Horn of Africa

The implications of the new Terrestrial Animal Health Code chapter on Rift Valley fever

A conference entitled: Rift Valley Fever – New Options for Trade, Prevention and Control was held in Djibouti from 21 to 23 April 2015 for the countries of the Middle East and the greater Horn of Africa. Attended by approximately 70 veterinary and medical professionals and scientists from 18 countries, it was organised under the umbrella of the Global Framework for the Control of Transboundary Animal Diseases (GF–TADs), with the participation of the main regional and sub-regional organisations.

One of the key topics of the Conference was the impact of Rift Valley fever (RVF) on trade and how the provisions of the new Terrestrial Animal Health Code (Terrestrial Code) Chapter 8.13 attempt to avoid some of the disastrous consequences of this disease that have occurred in the past and to mitigate the risk of introducing RVF through trade in livestock.

In historical terms, the Horn of Africa (HoA) and the Arabian Peninsula have been trading partners for centuries. As populations grew and incomes increased, due to oil revenues in the countries of the Middle East, particularly during the energy crisis of the 1970s, the demand for livestock imports – in particular, camel, sheep and goats – grew exponentially. This need was answered by a large supply of suitable livestock in the HoA. This livestock trade is now said to be the largest movement of live animals ‘on the hoof’ anywhere in the world [1].

Livestock exports thus became an important part of many economies in the HoA countries. For example, in Somalia, the livestock trade accounts for 75% to 90% of export earnings. Increased pilgrimages to Mecca also contributed to the expansion of trade, with peak demand during the Haji and Umra pilgrimages. This flourishing market, however, has experienced severe disturbances during extended trade bans imposed by some countries of the Gulf region. Trade bans related to RVF outbreaks were first imposed in 1997 and 1998, after outbreaks of RVF in Kenya and Somalia. Another lengthy trade ban was imposed after outbreaks of RVF in Saudi Arabia and Yemen in 2000, which saw a high fatality rate among people, and a further ban in 2006/2007 in response to RVF outbreaks in East Africa [2].

Established trade volumes dropped dramatically and imports from the HoA were replaced largely by imports from Australia and South Asia. This had an immediate and drastic effect on...
the economies, livelihoods, peace and stability of the HoA. However, illegal and unregulated trade into the Arabian Peninsula, using various points of entry, such as Yemen, and clandestine quarantine and transportation methods complemented the formal trade flow.

The era of establishing well-regulated and controlled quarantine stations brought a solution to these blocked markets and trade resumed. In 2002, Yemen opened a quarantine station, followed by the Djibouti quarantine station in 2006. Subsequent quarantine stations have also been opened in Somalia in Berbera, Bosasso and Mogadishu, and regular trade has resumed.

As the deliberations at the Djibouti Conference clearly showed, the risk of a new RVF outbreak in the greater HoA is high. The last outbreak in East Africa dates back eight years and the El Niño Southern Oscillation (ENSO) predictions indicate a strong El Niño event during the coming rainy season, leading to a change of climatic conditions favourable for the re-emergence of RVF [3]. It was therefore recommended that countries should consider themselves between the Early Warning Phase and the Alert Phase.

This at risk situation was one of the scenarios included in a set of case studies discussed during the working sessions at the Conference. Grouped into importer and exporter roles, participants negotiated conditions of trade to maintain safe regulated trade between countries in situations where the exporting country was either experiencing RVF outbreaks or was in an inter-epizootic period. Guidance for negotiations between importers and exporters was taken from the revised OIE Terrestrial Code chapter on RVF.

Taking the epidemiology of the disease into consideration, in addition to its impact on trade, as described above, the OIE World Assembly of Delegates adopted various

**This led to the differentiation into three possible country or zone situations:**

*a) Free country or zone*. A country or zone may be considered free from RVF virus (RVFV) infection when the disease is notifiable in the whole country and either it meets the conditions for historical freedom; or it has established an ongoing pathogen-specific surveillance programme for a minimum period of 10 years that has not identified RVFV infection in ruminants, and no indigenous human cases have occurred;

*b) Country or zone during an inter-epizootic period*. A country or zone infected with RVFV during the inter-epizootic period is one in which virus activity is present at a low level but the factors predisposing to an epizootic are absent;

*c) Country or zone during an epizootic*. A country or zone infected with RVFV during an epizootic is one in which outbreaks of RVF are occurring at an incidence substantially exceeding that of the inter-epizootic period.
The principles of trade in ruminants for all three situations are based on different scenarios:

- No contact with any areas in an inter-epizootic or epizootic situation:
  - No specific health requirements beyond veterinary certification of RVFV freedom in the country or zone of origin and along the transportation route

- Moving through or coming from a country or zone infected with RVFV during an inter-epizootic period:
  - No sign of RVF on the day of shipment
  - Vaccination at least 14 days prior to shipment or mosquito-proof quarantine for 14 days
  - Protection from vector attacks when passing through an area experiencing an epizootic

- Moving through or coming from an epizootic situation:
  - No sign of RVF on the day of shipment
  - Must not originate directly from the outbreak area
  - Vaccination at least 14 days prior to shipment
  - Quarantine for 14 days
  - Vector protection when passing through an outbreak area.

Settlement of nomadic pastoralists in Kenya

Infections with Rift Valley fever virus are often diagnosed in pastoralists who have handled infected animals, their tissues or products revisions to the Terrestrial Code RVF chapter in 2014, and again in May 2015. These revisions were made to incorporate current knowledge of RVF epidemiology in the context of safe options for trade. It is important to recognise that it is virtually impossible to eradicate RVF once it has occurred, due to the virus’s persistence in mosquito eggs.

The concept of an ‘area’ was introduced in recognition of the fact that RVF outbreaks are localised and do not usually extend over large geographical areas, and to enable trade from parts of the country other than the area experiencing an outbreak.

The revised chapter recognises that hides and skins are safe commodities that should not require any RVF-related conditions, whatever the RVF status of the country. It also makes provisions for the safe trade of embryos, semen, meat and meat products, and milk and milk products.

In summary, the revised chapter provides the least-trade-restrictive solutions for the above situations. However, the onus remains on these countries’ Veterinary Services to demonstrate their continuing surveillance and the quality of their quarantine protocols to inform trade negotiations.

References


Response to an alleged bioterror attack: OIE’s involvement

Expert’s perspective

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Keywords

The credibility and legitimacy of the United Nations Secretary General’s Mechanism (UNSGM) for investigation into the alleged use of biological weapons relies in part on qualified experts trained to undertake fact-finding missions using a scientific approach.

As observed from the 2013 UNSGM investigation of alleged use of such weapons in Syria, the UNSGM can be an effective tool of verification and as a deterrent of chemical and biological weapons use.

The OIE has a Memorandum of Understanding with the UN Office for Disarmament Affairs (UNODA), supporting the UNSGM and providing experts to its roster for missions. As the majority of biological agents are of animal origin, the expertise of the OIE in this area and its involvement in UNSGM are crucial.

OIE nominated experts have participated in training courses and simulation exercises that were aimed at training experts on the UNODA roster in leadership and as the ‘command and control’ (C&C) element of an UNSGM mission. The training focused on obtaining an understanding of mission command roles, function, responsibilities and supporting principles. The field simulation exercises focused on practical application of these skills to plan and implement a mission plan according to provided scenarios in an environment, to mimic reality as closely as possible.
The following provides an overview of the UNSGM and the experiences and perspectives of two OIE experts who have participated in training courses and simulation exercises hosted in Umeå, Sweden (June 2014), Coventry, United Kingdom (September 2014), and Berlin, Germany (November 2014).

**UN Secretary General’s Mechanism for alleged use**

The UN Secretary General established the mechanism to investigate allegations of the use of chemical/biological/toxic weapons based on the authority of the General Assembly resolution (42/37C)\(^1\) and Security Council 620 (1988)\(^1\). The effective use of the UNSGM can serve as an important deterrent against the use of these weapons. The UN Guidelines and Procedures (A/44/561)\(^1\) allow for the timely and efficient investigation of reports of alleged use.

UN missions are focused on collecting relevant data and information before performing the necessary analyses to ascertain facts related to the allegation of use, all of which are provided within a report to the Secretary General. The international community hopes that the UN and the use of this mechanism will provide objective, impartial determination on whether allegations of this type can be substantiated and to what extent they can be substantiated.

**Overview of UNSGM training and exercise courses**

UNSGM trainings bring together trainees from a roster of qualified experts selected by UNODA who might be requested to lead an investigation into the alleged use of a bio-weapon. Experts include representatives from UN Member States and international organisations (e.g. OIE, WHO, Interpol). The overall goals of the training courses so far have focused on preparing experts in mission leadership as well as testing the Functional Subunit approach.

Course instruction and guidance are provided by instructors who are qualified experts themselves, many of whom have experience in previous UNSGM missions. Accounts of their experiences have exposed trainees to realistic scenarios, field training and problem-solving, with subsequent discussion and evaluation that may otherwise cause delays during an investigation.

Training is conducted as classroom-based learning, small group discussions, mission preparatory exercises, and field simulation exercises for hands-on implementation of a mission plan in an environment to mimic reality as closely as possible.

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The courses focus on developing the experts' skill sets in the following areas:

- mission planning, coordination, and implementation;
- interacting with government and political representatives: communication and negotiation;
- **command structures**: roles, responsibilities, and coordination;
- **Functional Subunits**: roles, responsibilities, and coordination;
- effective team-work and building/leading teams;
- supervision and management of collecting and sampling forensic evidence;
- transporting evidence and documenting/ensuring chain of custody for biological samples;
- training in the use of personal protective equipment (PPE);
- evidence analysis;
- awareness of personnel and team safety;
- recording, documenting, and presenting information;
- writing and presenting the final report in line with the UN mandate.

Simulated field exercises are structured to mimic reality as closely as possible, such as training on and going through the full process of decontamination after conducting sampling activities in a potentially contaminated environment as part of the exercise scenario.

The structure of an UNSGM mission: team approach of a fact-finding mission regarding alleged use of biological weapons

The following provides an overview of the structure, responsibilities, and capabilities of an UNSGM mission team. The training activities follow this structure to prepare experts for mission roles and function.

1. **Command and control**

   Command and control (C&C) is assigned at three levels:
   - **a) Strategic (‘gold’) level**
     Strategic planning is developed at UN Headquarters and/or provided by a forward base and involve expert consultants. The UN Secretary General appoints a ‘Head of Mission’ (HoM) who would also be involved at the strategic level.
   - **b) Tactical (‘silver’) level**
     The tactical command structure is under the control of the HoM and leads the tactical command element. The HoM together with a selected team of experts (referred to as the ‘C&C element’) prepare the mission plan, develop both the investigative plan and forensic investigation, and assign tasks to the Functional Subunits.
   - **c) Operational (‘bronze’) level**
     The heads of each Functional Subunit provide operational C&C for their assigned tasks. Each subunit head arranges their equipment for personal protection, sampling, packing and transport of material, and ensures overall safety in the field.

2. **The Functional Subunit approach**

   The Functional Subunit approach proposes that teams of experts be assembled to undertake specific technical functions within a mission (Table I). The principal features to ensure the interoperability of this approach include:
   - co-location;
   - communication;
   - co-ordination;
   - joint understanding of risk and shared situational awareness.

   This approach facilitates subunit teams with advanced scientific and technological experience to be deployed safely within 24 hours.
Conclusions

Support and participation in UNSGM trainings will allow continued assessment of the skill set and performance of experts on the roster, to further expand the cadre of experts available to assist in missions, and ensure qualified experts with appropriate skills are included in a specific mission. The UNSGM and its capacities are supportive of, and aligned with, the missions of the OIE and its Biological Threat Reduction Strategy.

Functional subunit teams emerge as an effective approach in providing empirical data to the C&C element of a mission. Pre-formed teams bring capability and credibility to any UN mission. The OIE should consider an OIE-centric C&C element capable of directing the Functional Subunit teams’ activities to investigate the ‘alleged’ use of a biological weapon in an animal population.

Table I
Examples of Functional Subunit teams

<table>
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<tr>
<th>Functional Subunit</th>
<th>Capabilities/Expertise</th>
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| Intelligence gathering | intelligence collection and investigation gathering  
 - cross-border cooperation  
 - forensic microbiology  
 - forensic sample collection/preservation, evidence recovery, and chain of custody  
 - evidence analysis  
 - risk assessment  
 - assessment of crime scene  
 - interviewing and interrogation |
| Mobile laboratories | biological surveying and sampling  
 - mobile response unit and lab  
 - data analysis  
 - decontamination  
 - personal protective equipment  
 - environmental sampling/monitoring  
 - DNA fingerprinting  
 - unmanned devices for sampling  
 - emergency response and real-time field monitoring for bio-agents  
 - sample pre-screening and confirmatory testing  
 - high-throughput data analysis  
 - advice on sample collection  
 - reach-back capacity  
 - triage |
| Medical units | rapid deployable outbreak investigation team (RDOIT)  
 - necropsies  
 - medical investigation and sampling  
 - interviewing and epidemiological data collection  
 - disease agent containment  
 - risk assessment  
 - public health and epidemiologic investigation and data analysis  
 - analysis of mitigation/control interventions  
 - surveillance and outbreak detection  
 - training |
| Sampling teams | biological and environmental sampling, containment, and identification of bio-agents  
 - epidemiology, food safety, and infectious disease expertise  
 - multiple matrix sample collection: solids, liquids, air sampling  
 - necropsies  
 - chain of custody  
 - personal protective equipment  
 - decontamination  
 - field investigation  
 - hazardous area modelling  
 - clinical sampling  
 - assessment of data collection (samples) and medical assessment of symptoms (victims)  
 - development of sampling plans |

Environmental sampling during a simulated field exercise: a Functional Subunit sampling team
The following should be considered for OIE’s involvement in such activities:

1. Development is required of a standard operating procedure for use by Functional Subunits for a UN mission that outlines the type of training needed, how the Subunits should operate, the capability needs, and how they interact with the OIE C&C element.

2. Although the experts provide input, the direction and decisions of the C&C element activities and communications are undertaken by a mission lead chosen by the UN Secretary General. It should be noted that the HoM is a central role, and thus the overall decision-maker, and as such is crucial to the overall success of the mission teams’ investigation. Most importantly, the HoM acts as the conduit between the mission team and UN Headquarters. For the purposes of OIE requirements, it is recommended that the HoM should be appointed from the cadre of OIE experts and not only have either a compulsory scientific or veterinary background, but also display personal characteristics including strong leadership, excellent verbal/written communication skills, diplomacy skills and an understanding of the management of culturally diverse teams. An improved process is required for selecting a mission lead, as is proper preparation and orientation of this person prior to a mission.

3. Consideration should be given to whether sample testing would be performed by in-country mobile laboratories versus all samples being submitted to designated OIE Reference Laboratories. The main advantage of mobile laboratories is that they can provide a quick and transparent result in the country of origin; however, the presence of a mobile laboratory may lead to a Host Country expecting faster results, which could have political implications. OIE-prescribed tests should be employed to test all samples.

4. Some Functional Subunit teams work more effectively in an independent manner. For example, having the mobile laboratory subunits operate independently appears to be the most suitable approach. In certain situations however, combining individuals from different teams could be more effective. Evaluation of alternative instances when Subunits could be integrated should be made and considered as an option for the OIE during a UN mission.

5. There might be instances when a Functional Subunit is needed for a mission but does not need to be deployed on the investigation in the country of origin. Other subunits and capabilities should be considered, even though the use of subunits would be mission-dependent.

6. The C&C experts on the UN roster comprise experts from countries throughout the world. While this diversity and transparency are commendable, they bring their own challenges. Steps should be taken to prevent language barriers between the C&C element and the Functional Subunits that could result in miscommunication of information and confusion during the mission.

7. All Functional Subunits need to be thoroughly briefed before any mission to manage expectations on equipment and operational requirements.

8. The roles of the C&C elements and their interaction with the Functional Subunits need to be clarified, and appropriate training provided before commencing any mission.

9. The OIE should consider developing a bespoke training strategy. Defined training requirements with expectations of UN needs for OIE experts should be developed.

Memorandum of Understanding between the OIE and the UN Office for Disarmament Affairs (UNODA):
www.oie.int/fileadmin/Home/eng/About_us/docs/pdf/accords/UNODA_ANG.pdf
Self-declarations

Other than for African horse sickness, bovine spongiform encephalopathy, classical swine fever, contagious bovine pleuropneumonia, foot and mouth disease and peste des petits ruminants, for which the OIE currently has a procedure of official recognition of status, the self-declaration of freedom of a country or a territory from a given OIE-listed disease is under the responsibility of the Member concerned. The OIE is not responsible for inaccuracies in the publication of self-declarations concerning the status of a country or zone with regard to a disease.

Self-declaration by the Netherlands on regaining freedom from highly pathogenic avian influenza

submitted to the OIE on 7 May 2015 by Dr Christianne Bruschke, Delegate of the Netherlands to the OIE, Chief Veterinary Officer, Ministry of Economic Affairs, The Hague

On 16 November 2014, the Netherlands reported an outbreak of highly pathogenic avian influenza type H5N8 in poultry to the OIE. Since then, four more outbreaks have occurred, as reported to the OIE in subsequent follow-up reports. The last outbreak was detected on 29 November 2014. All infected flocks were culled and the establishments concerned were cleaned and disinfected. Definitive cleansing and disinfection were carried out for the Hekendorp outbreak on 29 December 2014; for the outbreak in Kamperveen 1 on 5 January 2015; for the outbreak in Kamperveen 2 on 29 December 2014; for the Zoeterwoude outbreak on 13 January 2015; and for the Ter Aar outbreak on 29 January 2015.

In the final follow-up report, the OIE was advised that all measures had been lifted on 29 April 2015 and the event was closed on 29 April 2015.

Therefore, considering:
− the information given above,
− the fact that three months have elapsed since the final cleansing and disinfection were carried out for the Ter Aar outbreak, on 29 January 2015, and
− in accordance with Article 10.4.4. of Chapter 10.4. of the Terrestrial Animal Health Code (2014), stating that if infection has occurred in poultry in a previously free country, zone or compartment, the free status can be regained three months after a stamping-out policy (including disinfection of all affected establishments) is applied, providing that surveillance in accordance with Articles 10.4.27. to 10.4.33. has been carried out during that three-month period,

the Delegate of the Netherlands to the OIE declares that her country has regained its highly pathogenic avian influenza-free status, as of 29 April 2015.
Self-declaration by Malta of freedom from rabies

submitted to the OIE on 6 February 2015 by Dr Anthony Gruppetta, Delegate of Malta to the OIE, Veterinary and Phytosanitary Regulation Department, Ministry for Sustainable Development, the Environment and Climate Change, Marsa

Notification of rabies

Rabies is a notifiable disease in Malta according to national legislation (Veterinary Services Act, Chapter 437).

Surveillance and monitoring

A system of clinical disease surveillance has been in operation for the last two years, during which no clinical signs of rabies were observed.

A national regulation came into force in 2001 (Subsidiary Legislation 437.101 of 20 May 2001), making it compulsory for dogs to be electronically identified with a microchip or transponder. All relevant information regarding these electronically identified animals (45,000 at present) and their owners is loaded onto the Veterinary Information System.

There are strict regulatory measures for the prevention and control of rabies, including importation procedures for carnivores.

Importation procedures

The importation procedures are in line with Regulation 998/2003/EC and other relevant European Union (EU) rules and, in particular:

− animals shall be identified by a microchip and EU pet passport or official Veterinary Health Certificate
− animals shall be vaccinated against rabies at a suitable interval before movement
− depending on the country of origin, animals shall be tested with a rabies antibody titration test at a suitable time before movement
− a tracking sheet shall be filled in by the owner of the pet/s with the exact travelling details, and sent to the Competent Authority before transportation
− all animals must be inspected at the arrival lounges of ports and airport and checks on their identification and documentation carried out. If an animal enters without the requested documents, the animal must be declined entry or put into quarantine until a satisfactory blood test is carried out and the regulatory quarantine period after vaccination has elapsed.

In 2012, some 1,229 dogs and cats entered Malta and were inspected, as follows:
− 908 dogs and 169 cats from EU countries
− 105 dogs and 47 cats from non-EU countries.

During the first half of 2013, 616 dogs and cats entered Malta and were inspected as follows:
− 428 dogs and 105 cats from EU countries
− 63 dogs and 20 cats from non-EU countries.

Therefore, considering:

− that, in Malta, all the requirements laid down in the OIE Terrestrial Animal Health Code to consider a territory free from rabies are met, as noted above,
− that no case of indigenous acquired rabies infection has been confirmed in any species during the past two years (Malta has not recorded any occurrence of rabies since 1911),
− that no imported case in carnivores or Chiroptera has been confirmed outside a quarantine station in the past six months, and
− in accordance with Article 8.12.3. of Chapter 8.12. of the Terrestrial Animal Health Code (2014), the Delegate of Malta to the OIE declares that his country is free from rabies.
Compartmentalisation

Compartmentalisation, a tool that could prevent or reduce significant trade barriers, is still not widely implemented despite its long-established existence in the OIE Terrestrial and Aquatic Animal Health Codes (the Codes). Compartmentalisation is an application of the principle of regionalisation or zoning, developed by the OIE for the purpose of establishing and preserving the high-health status of isolated animal subpopulations. Unfortunately, few countries are applying or recognising the application of this tool. A significant number of current trade barriers, particularly to trade in poultry and pig products, could be prevented if more countries were to implement and recognise compartments.

Effective compartmentalisation requires significant investment in infrastructure and discipline to establish and maintain these selected populations of animals under conditions of strict biosecurity. Nevertheless, some industries have already demonstrated the efficacy of such approaches when constructing high-security containment facilities to maintain valuable genetic lines of poultry and pigs. However, a problem is encountered when disease outbreaks occur in the country or zone where these high-security facilities exist and international trade from them is immediately suspended, despite the facilities themselves remaining disease free. Importing countries do not recognise the status of these privately managed establishments without official recognition being given by the national Veterinary Authority. The establishment of an effective compartment and its recognition by importing countries requires the application of the biosecurity measures outlined in the OIE Codes, but, most importantly, it also requires a credible Veterinary Service and a strong private–public partnership.

The concept

During the late 1990s, when revising the Terrestrial Animal Health Code chapter on avian influenza, the OIE Terrestrial Animal Health Standards Commission (the Code Commission), began to consider a mechanism whereby poultry subpopulations could be separated and their health protected in situations where zoning was not applicable. Zoning has been a well-accepted concept for the management of diseases such as foot and mouth disease (FMD), bovine tuberculosis and brucellosis. However, in

A significant number of current trade barriers, particularly to trade in poultry and pig products, could be prevented if countries were to implement and recognise compartments
the case of avian influenza, zoning is unable to provide such separation and health guarantees because of the risks posed by migratory birds. For this reason, it became evident that high biosecurity measures, already applied in industrial poultry and pig productions, had to be added to the measures applied in zones, and this concept, known today as a compartment, was defined and introduced into the avian influenza chapter of the Terrestrial Animal Health Code.

Once the concept was adopted as an essential component of the disease chapter on avian influenza, the Code Commission expanded it and incorporated it into the horizontal chapter on ‘Zoning and Compartmentalisation’ (Chapter 4.3.) and a new chapter on the ‘Application of Compartmentalisation’ (Chapter 4.4.). In the current Codes, reference is made to compartmentalisation in several additional disease-specific chapters, such as those on Newcastle disease, African swine fever, classical swine fever, equine influenza, FMD, bovine spongiform encephalopathy, peste des petits ruminants, contagious pleuropneumonia, scrapie, bovine tuberculosis and enzootic bovine leukosis. However, the application of compartmentalisation is not limited to these diseases and can be applied more widely, as long as it can be demonstrated that a compartment can prevent the introduction of a specific pathogen.

The definition

In the Terrestrial Animal Health Code, the OIE defines a compartment as an animal subpopulation in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease or specific diseases, for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade.

The Aquatic Animal Health Code defines a compartment as one or more aquaculture establishments under a common biosecurity management system containing an aquatic animal population with a distinct health status with respect to a specific disease or specific diseases, for which required surveillance and control measures are applied and basic biosecurity conditions are met for the purpose of international trade. Such compartments must be clearly documented by the Competent Authority.

There is a difference between the concept of compartmentalisation and that of zoning. Both are aimed at defining and maintaining disease-free animal subpopulations. However, zoning is based mostly on geographical separation, while compartmentalisation is based especially on biosecurity management practices. However, in practice, geography and biosecurity are important for both zones and compartments. Furthermore, they can be applied jointly, when adding risk mitigation measures to a compartment located within a disease-free zone.

In addition to the need for efficient and credible Veterinary Services, compartmentalisation requires a higher level of commitment by the private sector. A compartment will only be recognised if operating under a strong and transparent private–public partnership. The private sector must assume greater responsibilities, especially for the implementation of biosecurity measures, disease surveillance and transparent reporting. On the other hand, the Veterinary Services must undergo a paradigm shift from being strict inspectors to auditors. The ultimate responsibility of international certification will continue to remain the sole responsibility of the Veterinary Authority.

In order to achieve acceptance of compartments in international trade, a trusting trading relationship between Exporting countries are encouraged to share biosecurity plans and invite comments from their trading partners during ‘peace time’ in order to permit uninterrupted trade from the compartment and its partners.
importing and exporting countries is essential. While the compartment’s biosecurity plan is developed and implemented by the private sector, it can only be certified by the Veterinary Authority. Exporting countries are encouraged to share biosecurity plans and invite comments from their trading partners during ‘peace time’ in order to permit uninterrupted trade from the compartment, even if a disease incursion were to occur in the exporting country.

The development and implementation of a biosecurity plan is the responsibility of the private sector. However, the basis for authorisation of a compartment and its certification must be provided to the Veterinary Authority through a legal framework. While this can be in the form of a simple memorandum of understanding, in many countries it will require specific legislation.

In addition to the added responsibilities of managing a compartment, the private sector bears most of the cost of maintaining a compartment. However, it is also the private sector that stands to gain the greatest benefit from the disease-free guarantees of a compartment. Compartmentalisation quickly proves to be the safest approach to protect the large investments required for industrialised poultry or pig production.

Several countries have already invested in the establishment of compartmentalisation projects. However, due to the complexity of the concept, as well as the fundamental changes in management and philosophy needed, only a few countries have succeeded in having compartments recognised by trading partners.

Recognition

While the OIE has a programme for official recognition of disease-free countries or zones for a limited number of diseases, it does not officially recognise compartments. However, it provides assistance to countries wishing to establish compartments by publicising the country’s efforts, after relevant documentation has been submitted, attesting that the compartment was established and implemented in accordance with the relevant provisions in the Code.

National efforts for establishing compartments

Several countries have initiated compartmentalisation projects and have approached the OIE for advice.

In 2008, Brazilian and Thai Veterinary Authorities were the first to contact the OIE and ask for guidance and support. Brazil applied for funding from the WTO’s Standards and Trade Development Facility (STDF). Although no funding was provided, as Brazil was not considered eligible as a developing country, the STDF encouraged Brazil to proceed with the OIE and submit the outcome for recognition by the STDF.

In Brazil, the Brazilian Poultry Federation formed a private–public partnership with the Ministry of Agriculture and began to establish poultry compartments for broilers and poultry genetic material. Three companies, two broiler producers and one producer of poultry genetics, were selected as pilots for the project. Brazilian legislators enacted a legal framework in October 2014, providing the legal basis for the Ministry to recognise and officially certify compartments. Detailed biosecurity plans are being developed and implemented.

The compartmentalisation project in Thailand was initiated in 2008 with the aim of developing poultry compartments free from avian influenza and Newcastle

What is crucial, is a paradigm shift in the attitudes of the private sector and the Veterinary Authorities. The private sector must assume full responsibility for the establishment and implementation of the biosecurity plan and full transparency in reporting any suspicions and irregularities to the Veterinary Authority.
disease. Through a memorandum of understanding, the Thai Department of Livestock Development established an agreement with various private broiler farms. To date, the Thai project encompasses 61 broiler compartments, made up of 297 farms, with a yearly production of 78.3 million broilers. However, at the moment, many slaughterhouses are not yet incorporated into the compartment, as they are not fully dedicated to broilers originating in farms belonging to compartments.

In Chile, the Veterinary Authority approached the OIE for assistance with a project to establish a pig production compartment free from FMD, classical swine fever, African swine fever and Aujeszky’s disease. The general requirements for the establishment of compartments were enacted by the Servicio Agrícola y Ganadero (SAG) through Resolution 8309/2011. In 2012, Resolution 393/2012 approved a pig production compartment with a maximum capacity of 200,000 sows. The goal of this compartment was to secure safe trade, even in the event of incursion of one of these diseases into the national territory. The project has been temporarily suspended, but for reasons unrelated to animal health.

In Colombia, the Colombian Agriculture and Livestock Institute (ICA) has approved the importation of disease-free poultry from countries, zones or compartments under Circular 18/2012, and under Resolution 219/2012 has stipulated the requirements for certification of compartments free from highly pathogenic Newcastle disease. In 2013, the ICA authorised two compartments for the production of high-quality poultry breeding material. These compartments have been recognised by Ecuador. The specific requirements established by the ICA are available for consultation online.

In Zimbabwe, during the 1990s, the Ministry of Agriculture approved establishments which, at that time, were not called compartments, containing 2,500 sows for African swine fever-free breeding pigs and disease-free pork production, under a regulation signed in 1994. This compartment was recognised by Namibia for the export of fresh pork and by South Africa for the export of processed pork. This compartment was closed in 2000 for reasons unrelated to animal health.

Recently, in South Africa, the South African Poultry Association (Pluimvee Poultry) took the initiative to approach the Department of Agriculture, Forestry and Fisheries (DAFF) in jointly developing poultry compartments for export purposes. The first step was to establish a Poultry Disease Management Agency (PDMA), which serves as an independent agency, separate from the poultry industry and the government, to advise producers and liaise with DAFF. This very innovative approach is aimed at strengthening the relationship between producers and government. In 2012 DAFF developed a veterinary procedural notice (VPN), which has already been implemented by the large poultry producers. This notice is being shared with trading partners. The PDMA has also been working with DAFF in establishing a National Residue and Microbial Monitoring Programme, which will be used by DAFF.
to endorse control programmes set up by producers. This
creative PDMA approach is also being considered by other
livestock sectors in South Africa.

Most recently, in Uruguay, the Ministry of Livestock,
Agriculture and Fisheries approved a unique compartment for
FMD-free sheep production in May 2014 under Resolution
DGSG/No. 82/014. Uruguay has been officially recognised
as being free from FMD with vaccination since 2003 and
the national sheep population has not been vaccinated since
1988. Nevertheless, the compartment was established to give
further guarantees to markets, such as the EU and the USA,
which do not allow the importation of bone-in lamb. In order
to maximise Uruguay’s investment, and to take advantage
of the excellent genetic, health and nutritional conditions of
lamb in this compartment, it is likely that this concept will be
expanded to be labelled and marketed as high-health, high-
quality Uruguayan lamb.

In the area of aquatic animals, the Competent Authorities
in Chile have established, through Resolution 1012/2015,
general requirements for the sanitary management of
compartments that are free from high-risk diseases. One such
disease is infection by salmon infectious anaemia variants.
At present, the first submissions on compartments in the IX
Region are being officially evaluated.

**Conclusions**

The current impasse in achieving better international
recognition for compartments is not related to costly
investments, as the investments to protect valuable animal
germ plasm have already been made by the private sector,
demonstrating the benefits of a well-implemented and
biosecure production system. What is most difficult to
achieve, but crucial, is a paradigm shift in the attitudes of
the private sector and the Veterinary Authorities. The private
sector must assume full responsibility for the establishment
and implementation of the biosecurity plan and full
transparency in reporting any suspicions and irregularities
to the Veterinary Authority. The Veterinary Authority and
its personnel must be willing to change from an inspector
mentality to one of auditors able to certify these privately
implemented compartments.

However, the essential element, even prior to considering
a compartment, is the existence of a well-established and
trusting private–public partnership. A private sector that
cannot demonstrate a history of responsibly operating an
efficient biosecure production system and transparently
reporting suspicions and disease incursions should not
consider compartments. If compartments were to be proposed
by a private sector without such a history, they should not be
endorsed by the Veterinary Authority and will certainly not be
recognised by international trade partners.
A handbook to guide OIE African Delegates in participating in the OIE standard-setting process

A recommendation made at the 18th Conference of the OIE Regional Commission for Africa, held in Chad in 2009, prompted the Interfafrican Bureau for Animal Resources of the African Union (AU-IBAR) to find a way to assist African Delegates to become more involved in the OIE standard-setting process. The aim of this initiative was to enable the African continent to present a common position and to more actively contribute and participate in the debate on proposed standards during the General Session of the OIE World Assembly of Delegates, which takes place in Paris every year, in May. Ever since, OIE Delegates from the 54 African Member Countries have been making significant contributions to standard-setting, both through oral presentations at the General Session, representing a common position for Africa, and in written submissions to the OIE Specialist Commissions, which are responsible for formulating OIE standards on terrestrial and aquatic animal health.

However, it was soon realised that – taking into consideration the average turnover of OIE Delegates per annum, which is currently about 30% – more concrete and visual guidance should be available to ensure that new Delegates have easy, user-friendly access to information to keep them updated on the OIE standard-setting process and to enable them to make immediate constructive contributions to the process at this early stage in their careers as Delegates.

The idea of a handbook was subsequently developed under the PAN-SPSO1 project of AU-IBAR, with the aim of providing an easy-to-read guide to OIE Delegates of African countries to help them better understand the OIE and take more of an active role in OIE activities and the standard-setting process.

The seven chapters of the handbook aim to introduce Delegates to:

- the history of the OIE
- the structural composition of the OIE
- the wide scope of OIE involvement
- the achievements of the OIE
- the relationship and interactions of the OIE with other international organisations, and, above all,
- the vital process of setting, adopting and implementing OIE standards for the trade in animals and animal products.

Delegates receive particular guidance on how to prepare for and take part in the annual General Session of the World Assembly of Delegates. The handbook also describes the important role played by AU-IBAR in assisting Member Country Delegates to fulfil their role effectively and to establish a common African position on the adoption of new or amended OIE standards.

While most of the information contained in the handbook is also available on the OIE website and in other OIE publications, the handbook presents it in a consolidated and easy-to-read format.

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The findings of WTO Dispute Settlement Panels and the Appellate Body (AB) are key sources of interpretation of the WTO agreements. WTO panels have addressed several disputes about health (sanitary) measures. However, to date there has been little guidance from the WTO on the consistency of animal welfare measures. This situation changed with the WTO ruling, in 2015, on disputes WT/DS/400 and WT/DS/401 (European Communities – Measures Prohibiting the Importation and Marketing of Seal Products).

The dispute concerned a regulation that banned, with certain exceptions, the importation of seal products into the European Union (EU), based on animal welfare-related concerns.

The overall finding of the cases was that certain aspects of the EU Seal Regime violated the rules.
of the General Agreement on Tariffs and Trade (GATT). However, the Panel and the AB also found that a WTO Member may be justified in imposing animal welfare-related trade restrictions with the objective of protecting public morals, under GATT Article XX(a). This Article does not give governments carte blanche to restrict trade on animal welfare-related grounds. In the event of a WTO dispute, it is necessary to satisfy the tests and evidentiary requirements of the WTO, notably with respect to the introductory text of Article XX.

The discussion of the Panel and the AB on these disputes pointed to the relevance of international standards when seeking to justify animal welfare measures in the WTO context. For example, this is particularly relevant when considering the GATT principle of ‘least trade-restrictive’ measure. The absence of agreed standards or any form of consensus on what might constitute an appropriate standard presented a difficulty to the Panel and AB in their assessment of the EU Seal Regime’s consistency with the WTO rules.

Attention is drawn to the crucial role of the OIE in setting global animal welfare standards. The OIE is the unique intergovernmental organisation with a mandate to set global standards for animal health and welfare. The OIE standard-setting procedures are democratic and transparent: adoption reflects a consensual decision of the World Assembly of Delegates. The OIE standards are based on science and subject to repeated rounds of comment by Member Countries and other organisations prior to adoption. The standards in the OIE Terrestrial/Aquatic Animal Health Codes and OIE Terrestrial/Aquatic Manuals for Diagnostic Tests are key references in the WTO legal context when applying measures to prevent the entry and spread of animal diseases, including zoonoses. For this reason, both the Terrestrial and Aquatic Animal Health Codes provide guidance on the role and responsibility of the OIE in relation to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (‘the SPS Agreement’).

Based on the outcome of these disputes, the existence of OIE animal welfare standards will be a significant consideration for WTO panels in future disputes on related matters. However, the OIE Codes do not make reference to the obligations of Member Countries under relevant WTO Agreements (e.g. GATT) in relation to the application of animal welfare measures affecting international trade. It may in future be appropriate to consider the adoption of new text in the OIE Codes explaining the relevance of OIE animal welfare standards within the WTO legal framework.
Every year, new and emerging diseases increasingly affect our world and, over the last few decades, naming these new diseases has become more and more of a challenge. Inaccurate and ill-conceived names have resulted in severe unintended consequences on local cultures, tourism and the rural economy in general. To avoid such situations, the OIE has been working with WHO and the FAO to develop a common naming method for every emerging infectious disease, regardless of the species in which it was first observed. This method can be used by both the animal health and the human health community to promote consistency and coherence in the naming of new diseases.

Since the beginning of the new century, several epidemics, such as Ebola virus disease, the diverse strains of influenza of animal origin and Middle East respiratory syndrome (MERS), have focused attention on the role of risk communication during a disease emergency response.

In particular, one of the major communication challenges is ‘naming the disease’. To avoid any potential information vacuum or flood of misinformation when facing a new threat, time is of the essence. However, the urgency of such situations should not mean that we unthinkingly opt for names that might create stigmas for countries and regions, cultures or animal species. Harmonised rules for naming could avoid this predicament.

For example, in 2009 the confusion between ‘classical’ swine influenza or ‘swine flu’ and the ‘pandemic influenza’ strain became a topic of discussion in the media. The human and animal health global scientific community has agreed that the most appropriate way to refer to the disease is ‘pandemic H1N1 2009 influenza’. More recently, the name given to a respiratory disease caused by a particular strain of coronavirus, the so-called Middle East respiratory syndrome, has caused unforeseen adverse social and economic impacts in that region.

After several years of working with its international partners on the issue, the OIE welcomes the publication by WHO of ‘best practices’ for naming new human infectious diseases. This document can be found on the WHO website and an announcement letter from the three international organisations involved in the process, FAO, OIE and WHO, has been published on the Science website.

These guidelines aim to close the gap between the moment when a new human disease is identified and when it is eventually assigned an official name by the International Classification of Diseases Office, managed by WHO, which provides the final standard name for each human disease.

These few rules are in line with the ‘One Health’ integrated approach and the Tripartite Agreement between FAO, OIE and WHO for responding to emerging infectious diseases at the animal–human–ecosystems interface. The One Health approach and the Agreement both promote enhanced disease intelligence, surveillance, early detection and emergency response systems at the local, national, regional and global levels, supported by strong and stable national Public and Animal Health Services, as well as effective communication strategies.

The OIE strongly encourages all national, regional and international stakeholders, including scientists, national authorities and the media, to follow these WHO ‘best practices’ whenever a new disease emerges, so that inappropriate names are not created and the public is better served and informed.
May

84th General Session of the OIE World Assembly of Delegates
22–27 May
Paris, France

June

Conference on veterinary education
22–24 June
Thailand

September

27th Conference of the OIE Regional Commission for Europe
(dates to be confirmed)
Porto, Portugal

November

23rd Conference of the OIE Regional Commission for the Americas
14–18 November
Bolivia

Conference on animal welfare
30 November – 2 December
Mexico

December

Regional Seminar for OIE National Focal Points on Veterinary Products
1–3 December
Entebbe, Uganda

Linking health and environment: a forum on the background
9–11 December
Pierrefite-sur-Seine, France
http://ahpne.fr/spip.php?article313

WHO/OIE Conference on rabies with the collaboration of FAO and the support of GARC
10–11 December
Geneva, Switzerland

2016

2017

February

22nd Conference of the OIE Regional Commission for Africa
(dates to be confirmed)
Swakopmund, Namibia
Every year, the Secretariat of the World Trade Organization (WTO) organises specific technical assistance activities centring on the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). These activities focus primarily on the provisions of the SPS Agreement, their implementation and the latest discussions taking place in the SPS Committee. The overall objective of these activities is to enhance the knowledge and expertise of government officials from developing countries among the WTO’s Members and Observers, so that they can improve their understanding and implementation of the SPS Agreement, benefit from its provisions, and strengthen their capacity to take part in the work of the SPS Committee.

For 2015 and the beginning of 2016, three regional workshops are planned in English for:
– the Caribbean: 27–30 October 2015, Belize
– Asia: 10–13 November 2015, Bangkok, Thailand
– Arab countries: 25–28 January 2016, Kuwait City, Kuwait.

Additional information on technical assistance activities related to the SPS Agreement, including eligibility criteria, deadlines and application forms:
www.wto.org/sps/ta
OIE launches its own photo competition

In a move to promote and publicise the daily activities of disease prevention, surveillance, diagnosis and control carried out by animal health workers in the field throughout the world, the OIE launched its inaugural photo competition in March 2015, dubbed ‘Animal health, beyond the cliché’. It was publicised largely on social media and entrants from the OIE network submitted over 350 pictures. One winner for each of the five regions (Africa, the Americas, Asia and Oceania, Europe, and the Middle East) received 1,000 EUR in prize money. The prize-giving was held as part of the opening ceremony of the 83rd General Session of the OIE World Assembly of Delegates in May 2015. The five winning photos were exhibited in the cocktail room of Maison de la Chimie, Paris, throughout the week of the OIE General Session.

Background

The OIE organised its own photo competition for the first time in 2015 in a bid to broaden the narrow association of animal health with domestic animals and veterinary surgery, so often endorsed by the media. The objective was to show, through artistic delivery and photographic creativity, the crucial collaboration between animal health and public health, and the daily and sometimes arduous activities of prevention, surveillance, diagnosis and control carried out by animal health workers in the field (veterinarians, farmers, researchers and others) to safeguard animal health worldwide.

Jury

A jury experienced in photography and animal welfare was elected to choose the best photo per region, under strict conditions and fulfilling the requirements detailed in the rules of the competition.

Bernard Vallat
OIE Director General

Frédéric Decante
Veterinarian
and press photographer
decantephotographe.wix.com/
website

Daniel Mordzinski
Photographer
www.danielmordzinski.com

The selection process was organised in a totally anonymous way to ensure that all participants had an equal chance of being chosen.

Plans for 2016

Given the success of this year’s competition, plans are already under way for the 2016 OIE photo competition. The announcement of the winners will be made in early 2016 and the Communication Unit urges you to take part. Who knows? It could be you and your photo being featured at the General Session and in the Bulletin!
The African region showed a keen interest in the competition and 45 photos were submitted. After serious deliberation, the jury chose the photo *Ensuring safe exports*, submitted by Dr Gideon Brückner from South Africa, as the winner. The photo was taken at an export abattoir in India while Dr Brückner, who is the President of the OIE Scientific Commission for Animal Diseases, was on a mission for the OIE. The photo depicts the final inspection of buffalo meat before packaging and export to ensure that it meets the OIE *Terrestrial Code* requirements.

**Gideon Brückner**

The OIE photo competition is a brilliant initiative to depict the magnitude of the veterinary profession, and to stimulate veterinarians to view their work with new interest.

Dr Karin Schwabenbauer, outgoing President of the OIE Council, presenting Dr Gideon Bruckner with his cheque for 1,000 EUR.
Some 69 photos were submitted from the Americas. The winning photo, *Vaccination campaign against foot and mouth disease, province of Buenos Aires*, was taken by Ms Maria Julia Anguita, Communications Officer in the National Directorate of Animal Health (DNSA), National Service for Agrifood Health and Quality (SENASA) in Argentina. Her photo shows cowboys on horseback herding cattle during a vaccination campaign in Buenos Aires, complying with OIE animal welfare standards.

Maria Julia Anguita

I was very happy when I was informed my photograph had won the award for the Americas region. I am very grateful for this recognition from the OIE.
Asia and the Pacific provided another large pool of entries, with 68 photos being submitted. The photo, *Lung auscultation*, submitted by Dr Yadamsuren Dagvadorj, Officer in Charge of the National Livestock Identification System in the Department of Veterinary and Animal Breeding in Mongolia, was voted the best for the region. The photo shows a veterinarian examining a six-year-old girl’s favorite calf on her father’s farm close to Ulaanbaatar city.

Yadamsuren Dagvadorj
Thanks again to the OIE Photo competition organizers for the opportunity to compare and share my pictures with other photographers in the veterinary sector from different regions of the world.

Dr Karin Schwabenbauer presenting Dr Bolortuya Purevsuren, Delegate of Mongolia to the OIE, with Dagvadorj’s cheque for 1,000 EUR.
Europe provided more keen photographers, with 69 photographs submitted for the competition. The winner was Dr Petr Vaclavek, a laboratory specialist in serology/virology and Deputy Head of the Virology Department at the State Veterinary Institute in Jihlava, the Czech Republic. His photo was called, Rapid detection of motile Salmonella. In the image, his colleague evaluates the result of Salmonella spp. isolation on the selective agar called MRSV (modified semi-solid Rappaport-Vassiliadis agar).

Petr Vaclavek
This competition is a good way to make our everyday routine visible and give a practical meaning to ‘Animal health, beyond the cliché’.

Dr Karin Schwabenbauer presenting Dr Milan Malena, Delegate of the Czech Republic to the OIE, with Dr Vaclavek’s cheque for 1,000 EUR.
An overwhelming response was recorded from the Middle East, with 117 entries. The winning photo, *Destruction of horse with glanders*, was submitted by Dr Toraj Damavandi, a veterinarian and Head of the Salmas District Veterinary Service in Iran. The photo shows the owner of a horse with glanders helping veterinary staff to take appropriate measures for the safe and humane destruction of the affected horse. It also shows the important role taken by Veterinary Services in Iran in controlling zoonoses, and the difficult working conditions experienced by animal health workers.

Organizing such competitions helps to show the global community the role of Veterinary Services in animal diseases control.
Perspective on biological threat reduction

Veterinary students in the United States, like myself, receive only a brief introduction to the subject of biological threats. During my veterinary studies, I am taught in much detail about the potential dangers of zoonotic pathogens to veterinarians in clinical medicine as well as to pet owners and those who work with livestock. I have learned about sources of contamination and the epidemiology behind specific diseases. But my new appreciation for biological threats, and the reduction of these, has been completely influenced by the OIE and the Global Conference on Biological Threat Reduction.

As a short-term intern with the Biological Threat Reduction Organising Committee at the OIE, I have gained a profound respect for the depth of involvement in bio-threat reduction around the world. Participants at the Global Conference on Biological Threat Reduction included governmental and non-governmental organisations, universities from various countries, and many others from both the public and private sectors. This diversity of conference participants illustrates the degree of collaboration and effort made towards biological threat reduction. The International Criminal Police Organization (INTERPOL), the United Nations Office for Disarmament Affairs (UNODA), the United States Defense Threat Reduction Agency (DTRA), the Global Health Security Agenda (GHSA), the EcoHealth Alliance, World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO) and the Pirbright Institute, amongst many others, emphasised the importance of capacity-building and education for global biosecurity by presenting case studies and country perspectives and experiences.

With knowledge of and experience with the ‘One Health’ concept, the Global Conference on Biological Threat Reduction strengthened my understanding of the importance of building strong relationships and collaboration between the ‘One Health’ (veterinary, human, and environmental health) and security sectors.

My internship at the OIE has greatly increased my interest in learning more about the issues of biosecurity and biological threat reduction and, upon graduation with my Doctorate in Veterinary Medicine in January, I plan to pursue an additional internship to further educate myself in these fields and to gain experience for future career success.

Dahlia Grimes
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New edition of the *Terrestrial Animal Health Code* and *Aquatic Animal Health Code*

The aim of the OIE *Terrestrial Animal Health Code* and *Aquatic Animal Health Code* is to contribute to improve animal health and welfare worldwide and to assure the safety of international trade in animals (terrestrial: bees, birds and mammals; aquatic: amphibians, crustaceans, fish and molluscs) and their products. This is achieved through the detailing of health measures. The Veterinary Authorities of importing and exporting countries should use the OIE standards to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified trade barriers.

The value of the OIE Codes is twofold: firstly, the sanitary measures recommended are the result of consensus among the Veterinary Authorities of OIE Members, and secondly, they constitute a reference within the WTO SPS Agreement as an international standard for animal health and zoonoses, as well as a key standard for the prevention and control of animal diseases.

These new editions incorporate modifications to the Codes agreed at the 83rd OIE General Session in May 2015.

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