

International organisations and their role in helping to protect the worldwide community against natural and intentional biological disasters

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Summary

Preventing the spread of disease through international movements is one of the key objectives of the World Organisation for Animal Health (OIE). One of the ways it seeks to achieve this is by publishing international standards and guidelines aimed at, *inter alia*, preventing the importation of pathogens that are dangerous for animals and humans and strengthening Veterinary Services so that they can improve their surveillance and response systems. The OIE works in close partnership with the Food and Agriculture Organization of the United Nations (FAO), and together the two organisations have developed a joint initiative – the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs). Member Countries of these organisations could increase their capacity to manage the risks of disease occurrences, whether natural or deliberately introduced, if they would all strictly implement existing OIE international standards. Compliance with these standards greatly depends on the political willingness of national policy-makers and on a successful transfer of resources to developing countries in support of good governance and appropriate policy implementation. A United Nations Resolution obliging its Member Countries to implement OIE standards could prove invaluable in this respect.

Keywords

Agreement on the Application of Sanitary and Phytosanitary Measures – Food and Agriculture Organization of the United Nations – Global Framework for the Progressive Control of Transboundary Animal Diseases – International standard – Surveillance – Transparency – Veterinary Services – World Organisation for Animal Health.

Introduction

Preventing the spread of animal diseases and zoonoses through international movements is one of the key objectives of both the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO). The OIE seeks to accomplish this by establishing international standards and guidelines aimed at preventing the importation of pathogens that are dangerous for animals and humans (while avoiding

unjustified sanitary barriers) and through the surveillance, notification and control of diseases.

The OIE was founded in 1924, well before the creation of the United Nations. Initially, 28 countries united with a mandate to share information on animal disease outbreaks to allow Member Countries to take the appropriate control measures to protect themselves and to prevent further spread of the disease. There are now 167 OIE Member Countries. Providing a mechanism for prompt reporting of

disease outbreaks/occurrences is still one of the primary roles of the OIE, but the organisation is also recognised as the international standard-setting agency in the area of animal health. OIE standards include:

- procedures for surveillance and prompt reporting of outbreaks of animal diseases and zoonoses
- requirements to be met by Veterinary Services for surveillance, notification, early warning and response, and the chain of command
- requirements that should be met for a country or zone to be defined as free from certain infectious animal diseases and zoonoses
- recommendations for the safe importation of animals, animal products, semen, and embryos
- procedures for the inactivation of infectious agents
- the general provisions that countries should meet to reduce the risk of the spread of infectious animal diseases and zoonoses, including standards on the quality of national Veterinary Services.

These standards are included in various OIE publications, such as the *Terrestrial Animal Health Code (Terrestrial Code)*, the *Aquatic Animal Health Code (Aquatic Code)*, the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual [3])* and the *Manual of Diagnostic Tests for Aquatic Animals (the Aquatic Manual [2])*, the contents of which will be described in more detail later.

The FAO is one of the largest of the specialised United Nations Agencies, the mission of which is to develop agriculture, animal production, fisheries and forestry. In the field of animal production, the FAO Animal Health Service focuses its activities on assisting developing country members to control infectious and parasitic diseases, and to prevent their spread to other countries or regions. Livestock are important in supporting the livelihoods of poor livestock keepers, consumers, traders, and labourers throughout the developing world. Diseases affecting livestock can have a significant impact on animal productivity and production, on trade in live animals, meat and other animal products, on human health (through diseases transmissible from animals to humans), and, consequently, on the overall process of economic development. The activities of the FAO Animal Health Service include the provision of relevant and up-to-date information on:

- selected animal and zoonotic diseases
- the means of, and basic requirements for, the control and management of major animal diseases
- the increasingly important area of safeguarding humans from diseases originating from livestock and/or transmitted through the consumption of animal products.

More recently, the OIE and FAO have been strongly committed to convincing national policy-makers and international donors that the cost of strengthening Veterinary Services so that they can provide better surveillance, early warning systems and management of epizootics, including zoonoses, is negligible compared with the economic losses resulting from the accidental or intentional introduction of infectious animal diseases and zoonoses.

This paper briefly describes the shared objectives of the two organisations before discussing the systems they have in place to achieve these aims and providing details of the standard-setting work of the OIE.

Common objectives of the OIE and the FAO

The OIE and FAO have certain key objectives in their work for the prevention and control of infectious animal diseases and zoonoses; these main areas of activity are discussed below.

Transparency in the animal disease situation worldwide

Each OIE Member Country is committed to providing reports to the OIE Animal Health Information Department on its health status regarding significant animal diseases and diseases transmissible to humans; the OIE then disseminates the information to all Member Countries to enable them to take appropriate action and to protect themselves. The FAO stipulates that notification to the OIE is obligatory and provides tools for data capture and reporting. Non-member countries are encouraged to report.

Collection, analysis and dissemination of veterinary scientific information

Using the FAO network and its own network of internationally recognised scientists, Collaborating Centres and Reference Laboratories, the OIE collects, analyses and publishes the latest scientific information on the control and prevention of important animal diseases, including those transmissible to humans. The FAO serves as a source of expert advice to OIE groups and committees.

Strengthening of international coordination and cooperation in the control of animal diseases

The FAO implements and/or contributes to the implementation of country or regional projects and

programmes to prevent and control animal diseases by strengthening capacities and emergency preparedness for disease detection, analysis, and reaction. With OIE support, the FAO provides technical expertise to Member Countries (particularly developing countries) requesting assistance with animal disease control and eradication programmes. These activities are performed in coordination with other regional and international organisations, donor countries, and agencies responsible for supporting and funding the control of infectious animal diseases and zoonoses.

World trade in animals and animal products: protecting animal and human health while avoiding unjustified sanitary barriers

The OIE develops standards for use by its Member Countries to enable them to protect themselves against disease incursions as a result of trade in animals and animal products, while avoiding unjustified sanitary barriers. These standards are developed by experts from the Member Countries and from the OIE network of 170 Collaborating Centres and Reference Laboratories and in collaboration with FAO and FAO/IAEA (International Atomic Energy Agency) Joint Division experts.

In 1995 the standards developed by the OIE were recognised by the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) of the World Trade Organization (WTO). In order to harmonise SPS measures and remove unjustifiable sanitary restrictions to international trade, the Agreement states that Governments should use these international standards, guidelines and recommendations. Its goal is to minimise the risk of importing pathogens and to remove unjustified restrictions to international trade. The Agreement states that while it is the sovereign right of a country to provide an appropriate level of animal and public health protection at its borders, this right is not to be misused for protectionist purposes. An importing country can only apply sanitary measures to imports if a similar level of protection is applied internally and to all imports. Members Countries may introduce standards providing a higher level of protection than that provided by the OIE standards if there is a scientific justification, but these standards must be based on science-based risk analysis.

The FAO is in charge of assisting its Member Countries, particularly the developing countries, to implement international animal health standards. It has undertaken several studies on the cost of complying with the standards established by world bodies and has developed mid- and long-term policy options that countries can use to implement such standards. Moreover, the FAO is committed to developing a systems approach, through

national capacity building and performance indicators, to assist countries to attain compliance and improve trade opportunities.

Towards greater transparency in the animal health situation worldwide

The OIE is the worldwide observatory for animal health. It is supported in this mandate by the FAO. Its key mission is to keep national Veterinary Services and international organisations informed of the appearance and course of epizootics in any country in the world that represent a threat to animal or public health (zoonoses). The system is based on official animal disease information reports that the Veterinary Services of Member Countries have an obligation to submit to the OIE. The use of standard reporting forms ensures that the system is fed with the required data in a standardised format. The strength of the OIE Animal Disease Information System is its 'legal' basis as defined in Chapters 1.1.2 and 1.1.3 of the OIE *Terrestrial Code* and in Chapters 1.1.3 and 1.2.1 of the OIE *Aquatic Code* (6, 7).

The OIE Animal Health Information System has procedures for gathering weekly, annual and biannual animal health data from around the world (the International Monitoring System) and procedures for collecting more urgent information (the International Early Warning System). The International Early Warning System consists of an alert procedure to warn of exceptional epidemiological events (natural or intentional) occurring in Member Countries. Information is aimed at decision-makers and other stakeholders to enable them to take necessary preventive measures. Under this system, the occurrence of a disease, including zoonoses, or any exceptional epidemiological event must be reported as soon as possible (within 24 hours) to the OIE Central Bureau, which then quickly redistributes the information through a variety of channels. Follow-up reports are provided weekly to allow end-users to follow the epidemiological situation as it develops.

To improve the transparency of animal health information, the OIE is also working with the FAO to develop a verification procedure for non-official information from various sources on the existence of disease outbreaks that have not yet been officially notified to the OIE. These processes use different sources of information such as diagnostic results from OIE or FAO Reference Laboratories, scientific papers, field projects, newspapers, the internet, Global Public Health Intelligence (GPHIN), and ProMed.

In addition, in order to improve the control of highly contagious diseases, the FAO and OIE have recently developed a new initiative: the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs), which is based on a regional approach to animal disease control. The GF-TADs will improve both the quality and quantity of disease information and epidemiological intelligence. An integral aspect of the GF-TADs programme is the Global Early Warning System (GLEWS), which is due to be developed jointly by the FAO, the OIE and the World Health Organization (WHO) as an instrument to assist stakeholders and the international community to predict and prevent livestock animal disease threats through epidemiological analysis and the integration of additional factors that may have an impact on the occurrence and spread of such diseases (e.g. economic factors, civil unrest, climatic changes). The success of this initiative will rely heavily on the sharing of information on animal health and zoonoses in humans among the three organisations. Results of disease information tracking systems will be shared and compared for verification purposes. Through its own Animal Disease Information System the OIE will verify information with the Government representatives of the various Member Countries, thus significantly improving the quality of official information. Similarly, the FAO, through projects and activities in its Member Countries, will also verify the reliability of information and work towards improving transparency. The WHO will also share information gathered by its Global Alert and Response Team and other parties working in the area of zoonotic diseases and veterinary public health.

The expected activities of the GLEWS can be summarised as follows:

- use of designated OIE/FAO Collaborating Centres/Reference Laboratories for specific analysis and modelling trends;
- dissemination of information that complements the OIE Information System;
- dissemination of early warning messages that concentrate on predicting livestock animal disease threats through epidemiological analysis and the integration of additional factors that may have an impact on the occurrence and spread of such diseases;
- design of control strategies;
- development of coordinated responses to animal health and zoonotic emergencies. If consultation among the OIE and FAO shows that an onsite assessment of the situation would be valuable, an urgent field mission may be considered, in consultation with the WHO when relevant. This joint mission would engage the country authorities, especially those of the Ministries of Health and of Agriculture, to obtain a better appreciation of the situation

and offer assistance in the formulation of urgent intervention strategies. The joint mission experts would be responsible for briefing supervisors and suggesting a course of action.

While every effort is being made to improve the OIE Animal Health Information System, the major difficulty encountered, as with any international activity, is the quality of the information received, especially information from countries where the Veterinary Services do not comply with OIE standards and do not have adequate resources (e.g. lack of trained veterinarians and epidemiologists, poor equipment and laboratory facilities, inadequate involvement of farmers and other stakeholders in national surveillance systems, and absence of disease control programmes and emergency preparedness plans). In such countries, potentially dangerous situations might go unnoticed or not be dealt with promptly, thereby increasing the risk of disease spreading to other countries.

The OIE has a limited source of emergency funds for use in rapidly assisting Member Countries faced with exceptional epidemiological situations. Typically, these funds are used to immediately send experts from OIE Reference Laboratories or Collaborating Centres to assess the epidemiological situation in the field, and advise national authorities and other international organisations.

The FAO has a well-defined mandate to provide assistance to countries in the field of animal health. One of the key tools it uses to achieve this is its Emergency Prevention System-Livestock (EMPRES-Livestock) programme, which became fully operational in 1994. This system promotes the containment and control of the most serious epizootic diseases of livestock (transboundary animal diseases – TADs), and their progressive elimination on a regional and ultimately a global basis, through international cooperation, involving early warning, early reaction, research, and coordination. EMPRES capitalises on the information provided by the Global Livestock Production and Health Atlas (GLiPHA: www.fao.org/ag/againfo/resources/en/glipha/default.html), which depicts animal population densities, production systems, soil use, and other quantitative information that aids in disease intelligence, ecological understanding, and the development of intervention measures. The EMPRES-Livestock programme focuses on the major epizootic diseases – rinderpest, avian influenza, contagious bovine pleuropneumonia, foot and mouth disease, peste des petits ruminants, Rift Valley fever, Newcastle disease, lumpy skin disease, classical swine fever, and African swine fever. Early warning messages with trend analyses and the potential implications of the disease are posted on the web and distributed via the EMPRES-Livestock mailing list. EMPRES provides training assistance to national epidemiologists and advises on the development of surveillance programmes in the least developed countries.

In the event of a disease emergency and at the request of an FAO Member Country EMPRES can intervene to assist in combating diseases through the FAO's Technical Cooperation Division. Currently, technical cooperation projects (TCPs) are ongoing in over 40 countries, some with regional approaches to disease surveillance and control. While efforts are being made to build capacities in some least-advanced countries, what has been achieved so far has to be further strengthened to better respond to the real needs of many countries, e.g. the need for assistance in improving their national surveillance and monitoring systems and in bringing their contingency plans up to an acceptable level. Furthermore, the available resources must be dramatically increased for tackling emergency situations and to avoid the spread of TADs to other countries.

The warning system operated by the OIE Central Bureau allows Member Countries to react rapidly if the need arises. Member Countries must report any of the following incidents to the OIE Central Bureau within 24 hours:

- the first outbreak of an OIE listed disease
- the re-occurrence of a listed disease following a report declaring that the outbreak has ended
- the first occurrence of a new strain of a pathogen
- the sudden and unexpected increase in the distribution, incidence, morbidity or mortality of a disease prevalent within the country
- an emerging disease with significant morbidity and mortality or zoonotic potential
- evidence of change in the epidemiology of a listed disease (including host range, pathogenicity, strain).

This information is immediately relayed to the other Member Countries as follows:

- by fax or e-mail to countries directly threatened
- through the weekly publication *Disease Information*, available on the OIE website or by mail using the OIE distribution list.

Subsequent to any of the above notifications, Member Countries should send weekly reports by fax or e-mail to provide further information on the evolution of the incident that justified urgent notification.

The FAO obtains additional information from its networks: extensive field activities, Reference Laboratories, rumour-tracking (e.g. GPHIN, ProMed). This information and the resulting analyses are communicated to Member Countries and the OIE either directly or through various channels (FAO-AGA website, EMPRES Bulletin, etc.). As previously mentioned in the above discussion of the GLEWS, a cooperative approach to the information systems is

currently being developed between the OIE, FAO and WHO.

These warning systems will provide an improved worldwide surveillance network for the early detection and rapid reporting of any suspicious disease occurrence that is natural or could have its origin in an act of agroterrorism/bioterrorism, i.e. an intentional introduction of pathogens.

Through the International Early Warning System all OIE Member Countries receive alert messages on disease outbreaks, or suspicion thereof, via fax or e-mail. In addition, the OIE annual publication entitled *World Animal Health* provides a wide variety of information on the animal health situation worldwide and reports on the disease control methods Member Countries apply. A selection of all this information is integrated into the World Animal Health Information Database (WAHID) – a regularly updated computerised database available on the OIE website (www.oie.int).

Scientific information is disseminated through other publications, including the OIE *Scientific and Technical Review* (and similar FAO publications), which contains research articles and guidelines of the very highest standard for animal disease control. The FAO also publishes manuals on specific disease recognition, guides on contingency planning, participatory approaches to epidemiology, and booklets on sample collection and submission.

By collecting, processing and disseminating data on animal diseases throughout the world, the OIE and FAO endeavour to ensure transparency in the animal health situation worldwide for the benefit of its Member Countries. The information thus generated is essential for the success of national and regional disease control programmes, for reducing the health risks arising from international movements, and for the early detection of disease attributable to the escape or deliberate introduction of pathogens from acts of bioterrorism.

Towards improved health safeguards in international trade

The smooth flow of animals and animal products requires:

- the development and adoption by the international community of animal health standards aimed at avoiding the risk of importing and spreading diseases and pathogens transmissible to animals and humans

- the harmonisation, strict implementation, and greater transparency of national animal health regulations applicable to trade in animals and their products so as to avoid unjustified sanitary barriers.

OIE Standards

The WTO Agreement on the Application of Sanitary and Phytosanitary Measures advocates the use of standards developed under the auspices of the OIE. Various normative works, approved by the OIE International Committee (the OIE's highest authority; every Member Country is represented), are designed to promote the harmonisation of regulations applicable to trade and animal disease control, these are:

- the *Terrestrial Code*
- the *Aquatic Code*
- the *Terrestrial Manual*
- the *Aquatic Manual*.

The *Terrestrial Code* for mammals, birds and bees is developed by the Terrestrial Animal Health Standards Commission, and the *Aquatic Code* is developed by the Aquatic Animal Health Standards Commission (see section entitled Specialist Commissions). The *Codes* contain the requirements for the international movement of animals and animal products and also provide guidelines for disease reporting (see chapters 1.1.2 and 1.1.3 of the *Terrestrial Code* and chapters 1.1.3 and 1.2.1 of the *Aquatic Code* [6, 7]). Both these publications are updated annually and are available in paper and electronic versions (www.oie.int).

The *Terrestrial Manual*, developed by the Biological Standards Commission, and the *Aquatic Manual*, developed by the Aquatic Animal Health Standards Commission, presents standard methods for diagnostic tests and vaccine production to be applied notably in the context of international trade and national animal disease control programmes. Both texts constitute the reference standards for the international harmonisation of the diagnosis of animal diseases and vaccine control; they also contain specific chapters on the following topics:

- sampling methods
- the packaging and transport of samples
- quality management and the biosecurity of veterinary laboratories
- tests for sterility and freedom from contaminants
- human safety in the veterinary microbiology laboratory
- veterinary vaccine production

- disinfection and inactivation procedures
- laboratory methodologies for bacterial antimicrobial susceptibility testing.

In addition to the standards that appear in the *Manuals* the OIE publication *Quality Standard and Guidelines for Veterinary Laboratories: Infectious Diseases* (1) describes standards for the management and biosecurity of laboratories conducting tests for infectious diseases. It contains technical requirements for these laboratories and includes specific details with respect to test method validation, reference reagents, and laboratory proficiency testing.

The FAO plays a prominent role in providing expertise to the OIE and assisting countries to meet OIE standards through various activities such as national expert capacity building, field projects, and the transfer of technologies and expertise.

OIE activities

As well as publishing standards and disseminating disease information reported by Member Countries, the OIE now takes a proactive approach to disease reporting and will also report information on confirmed positive results provided by OIE Reference Laboratories (4) or from unofficial sources, such as scientific publications, ProMed and lay publications, after the information has been verified by the Member Country.

In addition to reporting disease occurrence the OIE, through the work of the Scientific Commission for Animal Diseases, develops and updates lists of countries recognised as being free from some serious diseases, most notably foot and mouth disease, bovine spongiform encephalopathy, rinderpest and contagious bovine pleuropneumonia. These lists make a substantial contribution to the health security of international movements.

Towards objective and impartial expertise in animal health

The International Agreement of 25 January 1924 establishing the OIE made it responsible for promoting and co-ordinating research on the surveillance and control of animal diseases throughout the world. This objective has been attained by the creation of a worldwide animal health network, involving the establishment of Specialist Commissions and Working Groups, the designation of Collaborating Centres and Reference Laboratories, the

organisation of meetings of experts and the continuing publication of scientific articles.

Specialist Commissions

The four Specialist Commissions study problems of animal disease surveillance and control and questions relating to the harmonisation of international regulations. Members are elected by the representatives of all OIE Member Countries (the International Committee).

The Terrestrial Animal Health Standards Commission contributes to the development, in collaboration with other Specialist Commissions, of the generic and specific chapters in the *Terrestrial Code*. In addition, it promotes the adoption by the International Committee of standards on animal health (including zoonoses), animal welfare, and animal production food safety. It also promotes harmonised surveillance methods and disease control regulations and proposes guidelines and recommendations concerning the trade or international movement of mammals, birds and bees and their products.

The Scientific Commission for Animal Diseases contributes to the development of better strategies and methods for animal disease surveillance and control. The Commission convenes groups of specialists of the highest standard, particularly in the event of an animal health emergency, to verify or evaluate the status of Member Countries in terms of specific animal diseases.

The Biological Standards Commission harmonises methods for the diagnosis of animal diseases and the control of biological products, especially vaccines used for veterinary purposes. The Commission coordinates a programme to develop standard reagents aimed at standardising diagnosis.

The Aquatic Animal Health Standards Commission collects all available information on disease control methods for fish, molluscs and crustaceans. The Commission harmonises rules governing trade in aquaculture products and recommends the optimum diagnostic methods. It also organises scientific meetings on these topics.

All the standards proposed by the various specialist Commissions must be approved by the International Committee before publication. All the standards, recommendations and guidelines of the OIE relating to animal health, zoonoses and international trade in animals and animal products are recognised by the WTO.

OIE Reference Laboratories and Collaborating Centres

These OIE Reference Laboratories and Collaborating Centres, of which there are 170, covering 92 diseases and

topics and located in 31 different countries, provide OIE Member Countries with support and scientific advice on all matters relating to the surveillance and control of animal diseases. This support can take many forms, such as the provision of experts (over 150 world-renowned scientists), the preparation and supply of diagnostic kits or standard reagents, and the organisation of seminars, courses, and scientific meetings.

Working Groups

Three OIE Working Groups are currently active:

- wildlife diseases
- animal welfare
- animal production food safety.

These Working Groups meet to review progress made in their field and to ensure that the information is made available rapidly to all OIE Member Countries. They also contribute to the organisation of scientific meetings, seminars, workshops and training courses.

The OIE Working Group most concerned with biosafety and biosecurity is the Working Group on Wildlife Diseases (WGWD). This Group collects information on wildlife diseases from Member Countries and urges Member Countries to recognise the importance of wild animals as potential reservoirs (and even as possible targets of deliberately introduced biological agents) when planning responses to outbreaks of disease, exotic or otherwise.

The WGWD has determined that relatively few countries have developed plans for responding to any disease incursions that may affect wild animals. In order to assist OIE Member Countries that may wish to undertake such planning, the WGWD will, in the course of the next 3 years, review preparedness and response plans that already may have been prepared. From these plans the Group will identify the essential major components and information requirements for this planning.

National preparedness for the possible incursion of exotic diseases must include both the preparedness of all the relevant public authorities and stakeholders to intervene and the assembly of up-to-date information on the population size, demography and susceptibility of indigenous wild animal species. It should also include the development of feasible procedures for the early recognition and diagnosis of a disease outbreak, the subsequent prevention of disease transmission between wildlife and domestic livestock and the spread of disease within wild animal populations. Effective planning for responses to an exotic disease incursion must accord to wildlife the same degree of attention that is now given

solely to domestic livestock. A national consultative network of wildlife expertise needs to be created and deployed in order to develop a range of techniques that can be used to reduce the risk of transmission of disease from livestock to wildlife (and *vice versa*) in the event of an exotic disease outbreak. These actions will establish the necessary databases, lines of communication and science-based plans to achieve a high level of preparedness to deal with an exotic disease incursion into a national wildlife population.

The OIE Working Group on Animal Production Food Safety, established between the OIE and high level representatives of the Codex Alimentarius Commission, is responsible for hazards to consumers that are likely to occur during animal production (on the farm). This Working Group also covers intentional actions likely to occur on a farm, e.g. the introduction of zoonotic agents.

During the 72nd General Session of the OIE International Committee in 2004, Member Countries recognised that zoonotic diseases are emerging and re-emerging with great frequency. They indicated their overwhelming support for a greater OIE role in confronting the challenges of such zoonoses. They also recognised the need to co-ordinate activities horizontally, among animal and public health officials and organisations, and vertically, through national, State, and local groups. For this purpose a Resolution (Resolution No. XXIX) was adopted during the 72nd General Session which encouraged further consideration of the OIE's thinking and commitment regarding emerging and re-emerging zoonoses; more specifically, it advocated the following:

- active consideration of this issue as part of the development of the fourth OIE strategic plan (2005-2010)
- the creation of an Ad hoc Group on Emerging Diseases which would work closely with members of the Working Group on Wildlife Diseases, the Working Group on Animal Production Food Safety, the Ad hoc Group on Epidemiology, OIE Reference Laboratories and other relevant bodies or experts (5).

There appears to be little possibility of preventing bioterrorist attacks on domestic animals and the subsequent spill-over into wildlife populations. There is also the risk that wildlife could be the initial target of covert bio-attacks and that infection could then spread into contiguous domestic livestock. Consequently, interdisciplinary and international efforts to increase surveillance and identification of disease pathogens and improved mechanisms for interagency and intergovernmental co-operation and collaboration will be necessary to combat the threat of disease agents likely to be used as a bioweapon.

Conclusions

If they are correctly implemented the tools currently available through the OIE and FAO can do a lot to increase the ability of Member Countries and of the International Community to protect themselves against the threat of a bioterrorist incident. However, such protection depends on the diligence with which Member Countries follow the existing guidelines and recommendations. The livestock development programmes of the FAO Animal Production and Health Division include recommendations on animal production, health and policy, all of which are invaluable in preparing an effective response to a biological disaster. If these recommendations are implemented alongside OIE guidelines the better prepared a country can be. The OIE guidelines and the benefits they bring can be summarised as follows:

- the OIE standards designed to control disease and to prevent the accidental or intentional introduction of pathogens provide a basis for the harmonisation of national legislation
- the OIE guidelines relating to the biosecurity of laboratories (based on expertise provided from researchers in human and animal health), provide advice on the safe management of biological agents used in those laboratories
- the OIE guidelines, standards and recommendations (and EMPRES principles) relating to surveillance and prompt notification of diseases of domestic livestock and wild animals (including zoonoses) encourage transparency of disease information
- the OIE standards on the quality and evaluation of Veterinary Services can be used to improve the quality and efficiency of Member Countries Veterinary Services, thereby guaranteeing increased vigilance in disease monitoring and surveillance. Compliance with these standards leads to improved early warning and early detection systems, thus ensuring a timely and rapid response to any emergency.

It is plain therefore that effective global biosecurity can only be achieved if all OIE and FAO Member Countries conscientiously comply with the standards and guidelines of the OIE, effectively train stakeholders and ensure the availability of adequate human and material veterinary resources.

Many countries share a common concern about the natural occurrence or deliberate misuse of biological pathogens that can affect public health, food and animal production. Existing methods of disease prevention and containment, regulations, international guidelines and standards are being extended at both national and international levels to improve the ability of countries to prevent, manage and recover from natural, accidental or deliberate introduction

of animal diseases. In this regard there are, at present, substantial differences among countries in the perception of national threat from the deliberate use of pathogenic biological agents. However, significant progress would be made if all Member Countries would strictly implement existing OIE international standards. This is dependent on the political willingness of all national policy-makers and

the transfer of resources from developed countries to developing countries in order to support good governance and appropriate policies based on the implementation of existing standards. A Resolution on this voted by the United Nations would provide great support in this respect. ■

Les organisations internationales et leur contribution à la protection de la communauté mondiale contre les catastrophes biologiques naturelles et d'origine intentionnelle

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Résumé

L'un des objectifs fondamentaux de l'Organisation mondiale de la santé animale (OIE) consiste à prévenir la propagation des maladies animales via les mouvements internationaux. L'OIE cherche à atteindre cet objectif notamment en publiant des normes internationales et des lignes directrices visant, entre autres, à prévenir l'importation d'agents pathogènes dangereux pour les animaux et pour l'homme et à renforcer les Services vétérinaires pour qu'ils puissent améliorer leurs systèmes de surveillance et d'interventions. L'OIE travaille en partenariat étroit avec l'Organisation des Nations Unies pour l'alimentation et l'agriculture (FAO), et ensemble, les deux organisations ont élaboré un programme commun – le Cadre global pour le contrôle progressif des maladies animales transfrontalières (GF-TADs). Les Pays membres de ces organisations pourraient accroître leur capacité à gérer les risques d'apparition de maladies, tant naturelles qu'introduites délibérément, si tous appliquaient rigoureusement les normes internationales de l'OIE existantes. Le respect de ces normes dépend en grande partie de la volonté politique des décideurs nationaux et du transfert probant des ressources en faveur des pays en développement à l'appui de la bonne gouvernance et de la mise en œuvre des politiques appropriées. Une résolution des Nations Unies obligeant ses Pays membres à appliquer les normes de l'OIE serait extrêmement utile à cet égard.

Mots-clés

Accord sur l'application des mesures sanitaires et phytosanitaires – Cadre mondial pour le contrôle progressif des maladies animales transfrontalières – Norme internationale – Organisation mondiale de la santé animale – Organisation des Nations Unies pour l'alimentation et l'agriculture – Service vétérinaire – Surveillance – Transparence. ■

Las organizaciones internacionales y su influencia en la protección de la comunidad internacional contra desastres biológicos de origen natural o intencionado

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Resumen

Uno de los objetivos básicos de la OIE (Organización Mundial de Sanidad Animal) se cifra en impedir la propagación de enfermedades a consecuencia del movimiento internacional de animales y productos de origen animal. Uno de los métodos que utiliza para ello es la publicación de normas y directrices internacionales destinadas, entre otras cosas, a prevenir la importación de patógenos peligrosos para el hombre y los animales y a fortalecer los Servicios Veterinarios ayudándolos a mejorar sus sistemas de vigilancia y respuesta. La OIE colabora estrechamente con la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO), y ambos organismos han puesto en marcha una iniciativa conjunta denominada Programa Global para el Control Progresivo de las Enfermedades Transfronterizas de los Animales (GF-TADs). Si todos los países miembros de ambas organizaciones aplicaran estrictamente las normas internacionales vigentes de la OIE, mejorarían su capacidad para manejar el riesgo de enfermedades, debidas a causas naturales o a actos intencionados. El cumplimiento de esas normas depende en gran medida de la voluntad de los responsables políticos nacionales y de la eficaz transferencia de recursos a los países en desarrollo para apoyar la buena gobernanza y la correcta aplicación de las políticas. En este sentido, una resolución de las Naciones Unidas por la que se obligara a los Estados Miembros a aplicar las normas de la OIE podría resultar de gran ayuda.

Palabras clave

Acuerdo sobre las Medidas Sanitarias y Fitosanitarias – Norma internacional – Organización Mundial de Sanidad Animal – Organización de las Naciones Unidas para la Agricultura y la Alimentación – Programa Global para el Control Progresivo de las Enfermedades Transfronterizas de los Animales – Servicio Veterinario – Transparencia – Vigilancia.



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