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12, rue de Prony, 75017 Paris, France
Telephone: 33-(0)1 44 15 18 88
Fax: 33-(0)1 42 67 09 87
E-mail: oiie@oiie.int
www.oiie.int

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FOREWORD

The OIE Terrestrial Animal Health Code (Terrestrial Code) sets out standards for the improvement of terrestrial animal health and welfare and veterinary public health worldwide, including through standards for safe international trade in terrestrial animals (mammals, birds and bees) and their products. The health measures in the Terrestrial Code should be used by the veterinary authorities of importing and exporting countries to provide for early detection, reporting and control agents pathogenic to terrestrial animals and, in the case of zoonoses, for humans, and to prevent their transfer via international trade in terrestrial animals and terrestrial animal products, while avoiding unjustified sanitary barriers to trade.

The health measures in the Terrestrial Code have been formally adopted by the World Assembly of OIE Delegates, which constitutes the organisation's highest decision-making body. The 20th edition incorporates modifications to the Terrestrial Code agreed at the 79th OIE General Session in May 2011. The 2011 edition includes revised information on the following subjects: glossary; notification of diseases and epidemiological information; procedures for self declaration and for official recognition by the OIE; Veterinary Services; evaluation of Veterinary Services; design and implementation of identification systems to achieve animal traceability; zoning and compartmentalisation; application of compartmentalisation; general hygiene in semen collection and processing centres; collection and processing of bovine, small ruminant and porcine semen; collection and processing of in vivo derived embryos from livestock and horses; general recommendations on disinfection and disinsectisation; certification procedures; OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization; quarantine measures applicable to non-human primates; model veterinary certificates for international trade in live animals, hatching eggs and products of animal origin; control of hazards of animal health and public health importance in animal feed; biosecurity procedures in poultry production; prevention, detection and control of Salmonella in poultry; transport of animals by land; transport of animals by air; slaughter of animals; killing of animals for disease control purposes; control of stray dog populations and use of animals in research and education; anthrax; Aujeszky's disease; bluetongue; foot and mouth disease; vesicular stomatitis; avian influenza; Newcastle disease; contagious bovine pleuropneumonia; lumpy skin disease; equine influenza; equine viral arteritis; Chlamydia abortus infection and scrapie.

The chapters on avian tuberculosis, duck virus enteritis, fowl cholera, Marek's disease and teschovirus encephalomyelitis were deleted from this edition.

A new chapter on communication has been incorporated into this edition.

The development of these standards and recommendations is the result of the ongoing work by the OIE Terrestrial Animal Health Standards Commission (the Code Commission). This Commission, which comprises six elected members, meets twice yearly to address its work programme. The Commission draws upon the expertise of internationally renowned scientific experts to prepare draft texts for new texts in the Terrestrial Code and to revise existing texts in the light of advances in veterinary science. The views of OIE National Delegates are systematically sought through the twice yearly circulation of draft texts. The Code Commission collaborates closely with other Specialist Commissions of the OIE, including the Aquatic Animal Health Standards Commission, the Biological Standards Commission and the Scientific Commission for Animal Diseases, to ensure the recommendations contained in the Terrestrial Code are based upon the latest scientific information.

The measures recommended in the Terrestrial Code are formally adopted by the World Assembly comprising the plenary meeting of OIE National Delegates, who are in most cases the heads of OIE Members' veterinary authorities. The World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) formally recognises the role of the OIE to specify standards and recommendations as the international references for animal health and zoonotic diseases. The SPS Agreement provides a multilateral framework, incorporating WTO Members' rights and disciplines, to guide the development, adoption and enforcement of sanitary measures to facilitate safe international trade. According to the SPS Agreement, WTO Members should provide a scientific justification for their import health measures. It is preferable that these be based on OIE recommendations. Where there are no OIE recommendations or in cases where a government chooses to apply more

restrictive conditions than those recommended by the OIE, the importing country should base its animal health measures on an import risk analysis as described in the Terrestrial Code. The Terrestrial Code is thus a key part of the WTO legal framework for international trade.

The Terrestrial Code is published annually in the three official OIE languages (English, French and Spanish). An unofficial translation into Russian is also available from the OIE upon request. The Terrestrial Code may be viewed and downloaded from the OIE Web site at <http://www.oie.int>.

The User's Guide, which follows this foreword, is designed to help Veterinary Authorities and other interested parties to use the Terrestrial Code and to promote fair access for all Members, including developing and least developed countries to international markets for animals and animal products.

We wish to thank the members of the Code Commission, Delegates and the experts participating in Working Groups and ad hoc Groups and other Commissions for their expert advice. Finally but not least, my thanks go to the staff of the OIE for their dedication in producing this 20th edition of the Terrestrial Code.

Members of the OIE Code Commission (2011):

President: Dr A. Thiermann

Vice-President: Dr E. Bonbon

Secretary General: Dr J. Caetano

Members: Dr S.C. MacDiarmid, Dr A. Hassan and Dr S. Hargreaves

June 2011

USER'S GUIDE

A. General remarks

1. *The purpose of this guide is to assist the Veterinary Authorities of OIE Members to use the OIE Terrestrial Animal Health Code (hereafter referred to as the Terrestrial Code) in the application of animal health measures to international trade in animals and animal products.*
2. *The recommendations in each of the disease chapters in Volume 2 of the Terrestrial Code are designed to prevent the disease in question being introduced into the importing country, taking into account the nature of the commodity and the animal health status of the exporting country. Correctly applied, OIE recommendations provide for trade in animals and animal products to take place with an optimal level of animal health security, based on the most up to date scientific information and available techniques.*
3. *The recommendations in the Terrestrial Code make reference only to the animal health situation in the exporting country, and assume that either the disease is either not present in the importing country or is the subject of a control or eradication programme. An OIE Member may authorise the importation of animals or animal products into its territory under conditions more or less stringent than those recommended by the Terrestrial Code. Where the conditions are more restrictive, they should be based on a scientific risk analysis conducted in accordance with OIE recommendations. For Members of the World Trade Organization (WTO), international trade measures should be based on a relevant international standard (i.e. for animal health measures, an OIE standard) or an import risk analysis, to meet their obligations under the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).*
4. *Key terms and expressions used in the Terrestrial Code are defined in the Glossary. When preparing international veterinary health certificates, the importing country should endeavour to use these terms and expressions in accordance with the definitions given in the Terrestrial Code. The Terrestrial Code contains model veterinary health certificates as a further support to Members.*
5. *The OIE aims to include, at the beginning of each chapter relating to a specific disease, an article listing either the commodities that are considered safe for trade regardless of the status of the country (or zone) for the disease in question. This is a work in progress and some chapters do not yet contain articles listing safe commodities. In some chapters, the OIE identifies the commodities that are capable of transmitting the disease through international trade and/or those considered not to present a risk.*
6. *In many of the Terrestrial Code chapters, the use of specified diagnostic tests and vaccines is recommended and a reference made to the relevant section in the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (hereafter referred to as the Terrestrial Manual). A table summarising the recommended diagnostic tests for OIE listed diseases may be found in Chapter 1.3. of the Terrestrial Code.*
7. *Section 5 of the Terrestrial Code deals with obligations and ethics in international trade. The OIE recommends that Veterinary Authorities have sufficient copies of the Terrestrial Code to allow all veterinarians directly involved in international trade to familiarise themselves with OIE recommendations. In addition, facilities responsible for disease diagnosis and vaccine production should be fully conversant with the recommendations in the Terrestrial Manual.*
8. *The term ('under study') is found in some chapters, with reference to an article or part of an article. This means that the text has not yet been adopted by the World Assembly of OIE Delegates and the particular provisions are not part of the Terrestrial Code. Members may wish to follow such recommendations in part or in full.*
9. *The complete text of the Terrestrial Code is available on the OIE Web site and may be downloaded from: <http://www.oie.int>.*

B. Disease Information, the Bulletin and World Animal Health

These three OIE publications inform Veterinary Authorities on the animal health situation worldwide. Importing countries can thus have an overview of the animal health status, disease occurrence and control programmes in exporting countries.

C. International veterinary health certificates

1. *An international veterinary certificate is an official document drawn up by the exporting country in accordance with the terms of Chapter 5.1. and Chapter 5.2. of the Terrestrial Code, describing the animal health requirements and, where appropriate, public health requirements for the exported commodity. The quality of the exporting country's Veterinary Services, including the ethical approach to the provision of veterinary health certificates, is key in providing assurance to trading partners regarding the safety of exported animals and products.*
2. *International veterinary health certificates underpin international trade and provide assurances to the importing country regarding the health status of the animals and products imported. The health measures prescribed should take into account the health status of both exporting and importing countries and be based upon the recommendations in the Terrestrial Code.*
3. *The following steps should be taken when drafting international veterinary health certificates:*
 - a) *list the diseases for which the importing country is justified in seeking protection, having regard to the disease status of the importing country and the exporting country. Importing countries should not impose measures in regard to diseases that occur in the importing country and that are not subject to official control or eradication programmes;*
 - b) *list the health requirements for each of these diseases. These can be determined by referring to the relevant articles in the Terrestrial Code. The Terrestrial Code provides for various levels of sanitary status: e.g. disease free country, zone or compartment, disease free herd, vaccinated or non vaccinated population;*
 - c) *OIE models (see Chapters 5.10 to 5.12. of the Terrestrial Code) should be used as the baseline for international veterinary health certificates. The content and form of the final certificate may be modified as required.*
4. *As stated in Article 5.2.2. of the Terrestrial Code, international veterinary health certificates should be kept as simple as possible and should be clearly worded, to avoid misunderstanding of the importing country's requirements.*

D. Guidance notes for importers and exporters

To provide a clear understanding of trade requirements, it is advisable to prepare 'guidance notes' to assist importers and exporters. These notes should identify and explain the trade conditions, including the measures to be applied before and after export, during transport and unloading, relevant legal obligations and operational procedures. Exporters should also be reminded of the International Air Transport Association (IATA) rules governing air transport of animals and animal products.

The guidance notes should advise on all details to be included in the health certification accompanying the consignment to its destination.

GLOSSARY

For the purposes of the *Terrestrial Code*:

Acceptable risk

means a *risk* level judged by each OIE Member to be compatible with the protection of animal and public health within its territory.

Animal

means a mammal, bird or bee.

Animal for breeding or rearing

means a domesticated or confined *animal* which is not intended for *slaughter* within a short time.

Animal for slaughter

means an *animal* intended for *slaughter* within a short time, under the control of the relevant *Veterinary Authority*.

Animal handler

means a person with a knowledge of the behaviour and needs of *animals* who, with appropriate experience and a professional and positive response to an *animal's* needs, can achieve effective management and good *welfare*. Competence should be gained through formal training and/or practical experience.

Animal health status

means the status of a country or a *zone* with respect to an *animal disease*, according to the criteria listed in the relevant chapter of the *Terrestrial Code* dealing with the *disease*.

Animal identification

means the combination of the identification and *registration* of an *animal* individually, with a unique identifier, or collectively by its *epidemiological unit* or group, with a unique group identifier.

Animal identification system

means the inclusion and linking of components such as identification of *establishments/owners*, the person(s) responsible for the *animal(s)*, movements and other records with *animal identification*.

Animal traceability

means the ability to follow an *animal* or group of *animals* during all stages of its life.

Animal welfare

means how an *animal* is coping with the conditions in which it lives. An *animal* is in a good state of *welfare* if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear and distress. Good *animal welfare* requires *disease* prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane *slaughter/killing*. *Animal welfare* refers to the state of the *animal*; the treatment that an *animal* receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

Antimicrobial agent

means a naturally occurring, semi-synthetic or synthetic substance that exhibits antimicrobial activity (kill or inhibit the growth of micro-organisms) at concentrations attainable *in vivo*. Anthelmintics and substances classed as disinfectants or antiseptics are excluded from this definition.

Apiary

means a *beehive* or group of *beehives* whose management allows them to be considered as a single *epidemiological unit*.

Appropriate level of protection

means the level of protection deemed appropriate by the country establishing a *sanitary measure* to protect human or animal life or health within its territory.

Approved

means officially approved, accredited or registered by the *Veterinary Authority*.

Artificial insemination centre

means a facility approved by the *Veterinary Authority* and which meets the conditions set out in the *Terrestrial Code* for the collection, processing and/or storage of semen.

Beehive

means a structure for the keeping of honey bee colonies that is being used for that purpose, including frameless hives, fixed frame hives and all designs of moveable frame hives (including nucleus hives), but not including packages or cages used to confine bees for the purpose of transport or isolation.

Biosecurity plan

means a plan that identifies potential pathways for the introduction and spread of *disease* in a *zone* or *compartment*, and describes the measures which are being or will be applied to mitigate the *disease risks*, if applicable, in accordance with the recommendations in the *Terrestrial Code*.

Border post

means any airport, or any port, railway station or road check-point open to *international trade* of *commodities*, where import veterinary inspections can be performed.

Captive wild animal

means an *animal* that has a phenotype not significantly affected by human selection but that is captive or otherwise lives under direct human supervision or control, including *zoo animals* and pets.

Case

means an individual *animal* infected by a pathogenic agent, with or without clinical signs.

Collection centre

means a facility approved by the *Veterinary Authority* for the collection of embryos/ova and used exclusively for donor *animals* which meet the conditions of the *Terrestrial Code*.

Commodity

means live *animals*, products of animal origin, animal genetic material, biological products and *pathological material*.

Compartment

means an animal *subpopulation* contained 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*.

Competent Authority

means the *Veterinary Authority* or other Governmental Authority of a Member having the responsibility and competence for ensuring or supervising the implementation of animal health and *welfare* measures, international veterinary certification and other standards and recommendations in the *Terrestrial Code* and in the *OIE Aquatic Animal Health Code* in the whole territory.

Container

means a non-self-propelled receptacle or other rigid structure for holding *animals* during a *journey* by one or several means of transport.

Containment zone

means a defined *zone* around and including suspected or infected *establishments*, taking into account the epidemiological factors and results of investigations, where control measures to prevent the spread of the *infection* are applied.

Day-old birds

means birds aged not more than 72 hours after hatching.

Death

means the irreversible loss of brain activity demonstrable by the loss of brain stem reflexes.

Disease

means the clinical and/or pathological manifestation of *infection*.

Disinfection

means the application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal *diseases*, including *zoonoses*; this applies to premises, *vehicles* and different objects which may have been directly or indirectly contaminated.

Disinfestation

means the application of procedures intended to eliminate arthropods which may cause *diseases* or are potential *vectors* of infectious agents of animal *diseases*, including *zoonoses*.

Early detection system

means a system for the timely detection and identification of an incursion or emergence of *diseases/infections* in a country, *zone* or *compartment*. An early detection system should be under the control of the *Veterinary Services* and should include the following characteristics:

- a) representative coverage of target animal *populations* by field services;
- b) ability to undertake effective *disease* investigation and reporting;
- c) access to laboratories capable of diagnosing and differentiating relevant *diseases*;
- d) a training programme for *veterinarians*, *veterinary para-professionals*, livestock owners/keepers and others involved in handling *animals* for detecting and reporting unusual animal health incidents;
- e) the legal obligation of private *veterinarians* to report to the *Veterinary Authority*;
- f) a national chain command.

Emerging disease

means a new *infection* resulting from the evolution or change of an existing pathogenic agent, a known *infection* spreading to a new geographic area or *population*, or a previously unrecognized pathogenic

agent or *disease* diagnosed for the first time and which has a significant impact on animal or public health.

Epidemiological unit

means a group of *animals* with a defined epidemiological relationship that share approximately the same likelihood of exposure to a pathogen. This may be because they share a common environment (e.g. *animals* in a pen), or because of common management practices. Usually, this is a *herd* or a *flock*. However, an *epidemiological unit* may also refer to groups such as *animals* belonging to residents of a village, or *animals* sharing a communal animal handling facility. The epidemiological relationship may differ from *disease* to *disease*, or even strain to strain of the pathogen.

Equivalence of sanitary measures

means the state wherein the *sanitary measure(s)* proposed by the *exporting country* as an alternative to those of the *importing country*, achieve(s) the same level of protection.

Eradication

means the elimination of a pathogenic agent from a country or *zone*.

Establishment

means the premises in which *animals* are kept.

Euthanasia

means the act of inducing *death* using a method that causes a rapid and irreversible loss of consciousness with minimum pain and distress to *animal*.

Exporting country

means a country from which *commodities* are sent to another country.

Feral animal

means an *animal* of a domesticated species that now lives without direct human supervision or control.

Flock

means a number of *animals* of one kind kept together under human control or a congregation of gregarious *wild animals*. For the purposes of the *Terrestrial Code*, a *flock* is usually regarded as an *epidemiological unit*.

Free compartment

means a *compartment* in which the absence of the animal pathogen causing the *disease* under consideration has been demonstrated by all requirements specified in the *Terrestrial Code* for free status being met.

Free zone

means a *zone* in which the absence of the *disease* under consideration has been demonstrated by the requirements specified in the *Terrestrial Code* for free status being met. Within the *zone* and at its borders, appropriate *official veterinary control* is effectively applied for *animals* and animal products, and their transportation.

Fresh meat

means *meat* that has not been subjected to any treatment irreversibly modifying its organoleptic and physicochemical characteristics. This includes frozen *meat*, chilled *meat*, minced *meat* and mechanically recovered *meat*.

Greaves

means the protein-containing residue obtained after the partial separation of fat and water during the process of rendering.

Hatching eggs

means fertilised bird eggs, suitable for incubation and hatching.

Hazard

means a biological, chemical or physical agent in, or a condition of, an *animal* or animal product with the potential to cause an adverse health effect.

Hazard identification

means the process of identifying the pathogenic agents which could potentially be introduced in the *commodity* considered for importation.

Headquarters

means the Permanent Secretariat of the World Organisation for Animal Health located at:

12, rue de Prony, 75017 Paris, FRANCE

Telephone: 33-(0)1 44 15 18 88

Fax: 33-(0)1 42 67 09 87

Electronic mail: oi@oie.int

WWW: <http://www.oie.int>

Herd

means a number of *animals* of one kind kept together under human control or a congregation of gregarious *wild animals*. For the purposes of the *Terrestrial Code*, a *herd* is usually regarded as an *epidemiological unit*.

Importing country

means a country that is the final destination to which *commodities* are sent.

Incidence

means the number of new *cases* or *outbreaks* of a *disease* that occur in a population at risk in a particular geographical area within a defined time interval.

Incubation period

means the longest period which elapses between the introduction of the pathogen into the *animal* and the occurrence of the first clinical signs of the *disease*.

Infected zone

means a *zone* in which a *disease* has been diagnosed.

Infection

means the entry and development or multiplication of an infectious agent in the body of humans or *animals*.

Infective period

means the longest period during which an affected *animal* can be a source of *infection*.

International trade

means importation, exportation and transit of *commodities*.

International veterinary certificate

means a certificate, issued in conformity with the provisions of Chapter 5.2., describing the animal health and/or public health requirements which are fulfilled by the exported *commodities*.

Journey

An *animal* transport journey commences when the first *animal* is loaded onto a *vehicle/vessel* or into a *container* and ends when the last *animal* is unloaded, and includes any stationary resting/holding periods. The same *animals* do not commence a new journey until after a suitable period for rest and recuperation, with adequate feed and water.

Killing

means any procedure which causes the *death* of an *animal*.

Laboratory

means a properly equipped institution staffed by technically competent personnel under the control of a specialist in veterinary diagnostic methods, who is responsible for the validity of the results. The *Veterinary Authority* approves and monitors such laboratories with regard to the diagnostic tests required for *international trade*.

Lairage

means pens, yards and other holding areas used for accommodating *animals* in order to give them necessary attention (such as water, feed, rest) before they are moved on or used for specific purposes including *slaughter*.

Listed diseases

means the list of transmissible *disease* agreed by the World Assembly of OIE Delegates and set out in Chapter 1.2. of the *Terrestrial Code*.

Loading/unloading

Loading means the procedure of moving *animals* onto a *vehicle/vessel* or into a *container* for transport purposes, while unloading means the procedure of moving *animals* off a *vehicle/vessel* or out of a *container*.

Market

means a place where *animals* are assembled for the purpose of trade or sale.

Meat

means all edible parts of an *animal*.

Meat-and-bone meal

means the solid protein products obtained when animal tissues are rendered, and includes any intermediate protein product other than peptides of a molecular weight less than 10,000 daltons and amino-acids.

Meat products

means *meat* that has been subjected to a treatment irreversibly modifying its organoleptic and physicochemical characteristics.

Milk

means the normal mammary secretion of milking *animals* obtained from one or more milkings without either addition to it or extraction from it.

Milk product

means the product obtained by any processing of *milk*.

Modified stamping-out policy

see *stamping-out policy*.

Monitoring

means the intermittent performance and analysis of routine measurements and observations, aimed at detecting changes in the environment or health status of a *population*.

Notifiable disease

means a *disease* listed by the *Veterinary Authority*, and that, as soon as detected or suspected, should be brought to the attention of this *Authority*, in accordance with national regulations.

Notification

means the procedure by which:

- a) the *Veterinary Authority* informs the *Headquarters*,
- b) the *Headquarters* inform the *Veterinary Authority*,

of the occurrence of an *outbreak* of *disease* or *infection*, according to the provisions of Chapter 1.1. of the *Terrestrial Code*.

Official control programme

means a programme which is approved, and managed or supervised by the *Veterinary Authority* of a country for the purpose of controlling a *vector*, *pathogen* or *disease* by specific measures applied throughout that country, or within a *zone* or *compartment* of that country.

Official Veterinarian

means a *veterinarian* authorised by the *Veterinary Authority* of the country to perform certain designated official tasks associated with animal health and/or public health and inspections of *commodities* and, when appropriate, to certify in conformity with the provisions of Chapters 5.1. and 5.2. of the *Terrestrial Code*.

Official veterinary control

means the operations whereby the *Veterinary Services*, knowing the location of the *animals* and after taking appropriate actions to identify their owner or responsible keeper, are able to apply appropriate animal health measures, as required. This does not exclude other responsibilities of the *Veterinary Services* e.g. food safety.

Outbreak

means the occurrence of one or more *cases* in an *epidemiological unit*.

Pathological material

means samples obtained from live or dead *animals*, containing or suspected of containing infectious or parasitic agents, to be sent to a *laboratory*.

Place of shipment

means the place where the *commodities* are loaded into the *vehicle* or handed to the agency that will transport them to another country.

Population

means a group of *units* sharing a common defined characteristic.

Post-journey period

means the period between *unloading* and either recovery from the effects of the *journey* or *slaughter* (if this occurs before recovery).

Poultry

means all domesticated birds, including backyard poultry, used for the production of *meat* or eggs for consumption, for the production of other commercial products, for restocking supplies of game, or for breeding these categories of birds, as well as fighting cocks used for any purpose.

Birds that are kept in captivity for any reason other than those reasons referred to in the preceding paragraph, including those that are kept for shows, races, exhibitions, competitions or for breeding or selling these categories of birds as well as pet birds, are not considered to be poultry.

Pre-journey period

means the period during which *animals* are identified, and often assembled for the purpose of *loading* them.

Prevalence

means the total number of *cases* or *outbreak* of a *disease* that are present in a population at risk, in a particular geographical area, at one specified time or during a given period.

Protection zone

means a *zone* established to protect the health status of *animals* in a free country or *free zone*, from those in a country or *zone* of a different *animal health status*, using measures based on the epidemiology of the *disease* under consideration to prevent spread of the causative pathogenic agent into a free country or *free zone*. These measures may include, but are not limited to, vaccination, movement control and an intensified degree of *surveillance*.

Qualitative risk assessment

means an assessment where the outputs on the likelihood of the outcome or the magnitude of the consequences are expressed in qualitative terms such as 'high', 'medium', 'low' or 'negligible'.

Quality

is defined by International Standard ISO 8402 as 'the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs'.

Quantitative risk assessment

means an assessment where the outputs of the *risk assessment* are expressed numerically.

Quarantine station

means an establishment under the control of the *Veterinary Authority* where *animals* are maintained in isolation with no direct or indirect contact with other *animals*, to ensure that there is no transmission of specified pathogen(s) outside the establishment while the *animals* are undergoing observation for a specified length of time and, if appropriate, testing and treatment.

Registration

is the action by which information on *animals* (such as identification, animal health, movement, certification, epidemiology, *establishments*) is collected, recorded, securely stored and made appropriately accessible and able to be utilised by the *Competent Authority*.

Resting point

means a place where the *journey* is interrupted to rest, feed or water the *animals*; the *animals* may remain in the *vehicle/vessel* or *container*, or be unloaded for these purposes.

Restraint

means the application to an *animal* of any procedure designed to restrict its movements.

Risk

means the likelihood of the occurrence and the likely magnitude of the biological and economic consequences of an adverse event or effect to animal or human health.

Risk analysis

means the process composed of *hazard identification*, *risk assessment*, *risk management* and *risk communication*.

Risk assessment

means the evaluation of the likelihood and the biological and economic consequences of entry, establishment and spread of a *hazard* within the territory of an *importing country*.

Risk communication

is the interactive transmission and exchange of information and opinions throughout the *risk analysis* process concerning *risk*, *risk*-related factors and *risk* perceptions among *risk* assessors, *risk* managers, *risk* communicators, the general public and other interested parties.

Risk management

means the process of identifying, selecting and implementing measures that can be applied to reduce the level of *risk*.

Sanitary measure

means a measure, such as those described in various chapters of the *Terrestrial Code*, destined to protect animal or human health or life within the territory of the OIE Member from *risks* arising from the entry, establishment and/or spread of a *hazard*.

Slaughter

means any procedure which causes the *death* of an *animal* by bleeding.

Slaughterhouse/abattoir

means premises, including facilities for moving or lairaging *animals*, used for the *slaughter* of *animals* to produce animal products and approved by the *Veterinary Services* or other *Competent Authority*.

Space allowance

means the measure of the floor area and height allocated per individual or body weight of *animals*.

Specific surveillance

means the *surveillance* targeted to a specific *disease* or *infection*.

Stamping-out policy

means carrying out under the authority of the *Veterinary Authority*, on confirmation of a *disease*, the *killing* of the *animals* which are affected and those suspected of being affected in the *herd* and, where appropriate, those in other *herds* which have been exposed to *infection* by direct animal to animal contact, or by indirect contact of a kind likely to cause the transmission of the causal pathogen. All susceptible *animals*, vaccinated or unvaccinated, on an infected premises should be killed and their carcasses destroyed by burning or burial, or by any other method which will eliminate the spread of *infection* through the carcasses or products of the *animals* killed.

This policy should be accompanied by the cleansing and *disinfection* procedures defined in the *Terrestrial Code*.

The terms *modified stamping-out policy* should be used in communications to the OIE whenever the above animal health measures are not implemented in full and details of the modifications should be given.

Stocking density

means the number or body weight of *animals* per unit area on a *vehicle/vessel* or *container*.

Stunning

means any mechanical, electrical, chemical or other procedure which causes immediate loss of consciousness; when used before *slaughter*, the loss of consciousness lasts until *death* from the *slaughter* process; in the absence of *slaughter*, the procedure would allow the *animal* to recover consciousness.

Subpopulation

means a distinct part of a *population* identifiable according to specific common animal health characteristics.

Surveillance

means the systematic ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information to those who need to know so that action can be taken.

Terrestrial Code

means the OIE *Terrestrial Animal Health Code*.

Terrestrial Manual

means the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*.

Transit country

means a country through which *commodities* destined for an *importing country* are transported or in which a stopover is made at a *border post*.

Transparency

means the comprehensive documentation of all data, information, assumptions, methods, results, discussion and conclusions used in the *risk analysis*. Conclusions should be supported by an objective and logical discussion and the document should be fully referenced.

Transport

means the procedures associated with the carrying of *animals* for commercial purposes from one location to another by any means.

Transporter

means the person licensed by the *Competent Authority* to transport *animals*.

Travel

means the movement of a *vehicle/vessel* or *container* carrying *animals* from one location to another.

Unit

means an individually identifiable element used to describe, for example, the members of a *population* or the elements selected when sampling; examples of *units* include individual *animals*, *herds*, *flocks* and *apiaries*.

Vaccination

means the successful immunisation of susceptible *animals* through the administration, according to the manufacturer's instructions and the *Terrestrial Manual*, where relevant, of a vaccine comprising antigens appropriate to the *disease* to be controlled.

Vector

means an insect or any living carrier that transports an infectious agent from an infected individual to a susceptible individual or its food or immediate surroundings. The organism may or may not pass through a development cycle within the *vector*.

Vehicle/vessel

means any means of conveyance including train, truck, aircraft or ship that is used for carrying *animal(s)*.

Veterinarian

means a person registered or licensed by the relevant *veterinary statutory body* of a country to practice veterinary medicine/science in that country.

Veterinary Authority

means the Governmental Authority of an OIE Member, comprising *veterinarians*, other professionals and para-professionals, having the responsibility and competence for ensuring or supervising the implementation of animal health and *welfare* measures, international veterinary certification and other standards and recommendations in the *Terrestrial Code* in the whole territory.

Veterinary legislation

means laws, regulations and all associated legal instruments that pertain to the veterinary domain.

Veterinary para-professional

means a person who, for the purposes of the *Terrestrial Code*, is authorised by the *veterinary statutory body* to carry out certain designated tasks (dependent upon the category of *veterinary para-professional*) in a territory, and delegated to them under the responsibility and direction of a *veterinarian*. The tasks for each category of *veterinary para-professional* should be defined by the *veterinary statutory body* depending on qualifications and training, and according to need.

Veterinary Services

means the governmental and non-governmental organisations that implement animal health and *welfare* measures and other standards and recommendations in the *Terrestrial Code* and the OIE *Aquatic Animal Health Code* in the territory. The Veterinary Services are under the overall control and direction of the *Veterinary Authority*. Private sector organisations, *veterinarians*, *veterinary paraprofessionals* or aquatic animal health professionals are normally accredited or approved by the *Veterinary Authority* to deliver the delegated functions.

Veterinary statutory body

means an autonomous authority regulating *veterinarians* and *veterinary para-professionals*.

Wild animal

means an *animal* that has a phenotype unaffected by human selection and lives independent of direct human supervision or control.

Wildlife

means *feral animals*, *captive wild animals* and *wild animals*.

Zone/region

means a clearly defined part of a territory containing an animal *subpopulation* with a distinct health status with respect to a specific *disease* for which required *surveillance*, control and biosecurity measures have been applied for the purpose of *international trade*.

Zoonosis

means any *disease* or *infection* which is naturally transmissible from *animals* to humans.

SECTION 1.

ANIMAL DISEASE DIAGNOSIS, SURVEILLANCE AND NOTIFICATION

CHAPTER 1.1.

NOTIFICATION OF DISEASES AND EPIDEMIOLOGICAL INFORMATION

Article 1.1.1.

For the purposes of the *Terrestrial Code* and in terms of Articles 5, 9 and 10 of the OIE Organic Statutes, OIE Members shall recognise the right of the *Headquarters* to communicate directly with the *Veterinary Authority* of its territory or territories.

All *notifications* and all information sent by the OIE to the *Veterinary Authority* shall be regarded as having been sent to the country concerned and all *notifications* and all information sent to the OIE by the *Veterinary Authority* shall be regarded as having been sent by the country concerned.

Article 1.1.2.

1. Members shall make available to other Members, through the OIE, whatever information is necessary to minimise the spread of important animal *diseases* and to assist in achieving better worldwide control of these *diseases*.
2. To achieve this, Members shall comply with the *notification* requirements specified in Article 1.1.3.
3. To assist in the clear and concise exchange of information, reports shall conform as closely as possible to the official OIE *disease* reporting format.
4. Recognising that scientific knowledge concerning the relationship between disease agents and *diseases* is constantly developing and that the presence of an infectious agent does not necessarily imply the presence of a *disease*, Members shall ensure through their reports that they comply with the spirit and intention of point 1 above.
5. In addition to notifying new findings in accordance with Article 1.1.3., Members shall also provide information on the measures taken to prevent the spread of *diseases*; including quarantine measures and restrictions on the movement of *animals*, animal products and biological products and other miscellaneous objects which could by their nature be responsible for transmission of *disease*. In the case of *diseases* transmitted by *vectors*, the measures taken against such *vectors* shall also be specified.

Article 1.1.3.

Veterinary Authorities shall, under the responsibility of the Delegate, send to the *Headquarters*:

1. in accordance with relevant provisions in the *disease* specific chapters, *notification* through the World Animal Health Information System (WAHIS) or by telegram, fax or e-mail, within 24 hours, of any of the following events:
 - a) first occurrence of a *listed disease* and/or *infection* in a country, a *zone* or a *compartment*;
 - b) re-occurrence of a *listed disease* and/or *infection* in a country, a *zone* or a *compartment* following a report declared the *outbreak* ended;
 - c) first occurrence of a new strain of a pathogen of a *listed disease* in a country, a *zone* or a *compartment*;
 - d) a sudden and unexpected increase in the distribution, incidence, morbidity or mortality of a *listed disease* prevalent within a country, a *zone* or a *compartment*;
 - e) an *emerging disease* with significant morbidity or mortality, or zoonotic potential;
 - f) evidence of change in the epidemiology of a *listed disease* (including host range, pathogenicity, strain) in particular if there is a zoonotic impact;
2. weekly reports by telegram, fax or e-mail subsequent to a *notification* under point 1 above, to provide further information on the evolution of an incident which justified urgent *notification*; these reports should continue until the situation has been resolved through either the *disease* being eradicated or it becoming endemic so that six-monthly reporting under point 3 will satisfy the obligation of the Member to the OIE; in any case, a final report on the incident should be submitted;
3. a six-monthly report on the absence or presence, and evolution of *listed disease* and information of epidemiological significance to other Members;
4. an annual report concerning any other information of significance to other Members.

Article 1.1.4.

1. The *Veterinary Authority* of a territory in which an *infected zone* was located shall inform the *Headquarters* when this zone is free from the *disease*.
2. An *infected zone* for a particular *disease* shall be considered as such until a period exceeding the *infective period* specified in the *Terrestrial Code* has elapsed after the last reported *case*, and when full prophylactic and appropriate animal health measures have been applied to prevent possible reappearance or spread of the *disease*. These measures will be found in detail in the various chapters of Volume II of the *Terrestrial Code*.
3. A Member may be considered to regain freedom from a specific *disease* when all conditions given in the relevant chapters of the *Terrestrial Code* have been fulfilled.
4. The *Veterinary Authority* of a Member which sets up one or several *free zones* shall inform the OIE giving necessary details, including the criteria on which the free status is based, the requirements for maintaining the status and indicating clearly the location of the *zones* on a map of the territory of the Member.

Article 1.1.5.

1. The *Headquarters* shall send by telegram, fax, e-mail or *Disease Information* to the *Veterinary Authorities* concerned, all *notifications* received as provided in Articles 1.1.2. to 1.1.4.
2. The *Headquarters* shall dispatch to the Delegates information on new *outbreaks* of *listed diseases*.

3. The *Headquarters*, on the basis of information received and of any official communication, shall prepare an annual report concerning the application of the *Terrestrial Code* and its effects on *international trade*.

Article 1.1.6.

Telegrams or faxes sent by *Veterinary Authorities* in pursuance of Articles 1.1.3. and 1.1.5. shall receive priority in accordance with the circumstances. Communications by telephone, telegram or fax, sent in the case of exceptional urgency when there is danger of spread of a notifiable epizootic *disease*, shall be given the highest priority accorded to these communications by the International Arrangements of Telecommunications.

CHAPTER 1.2.

CRITERIA FOR LISTING DISEASES

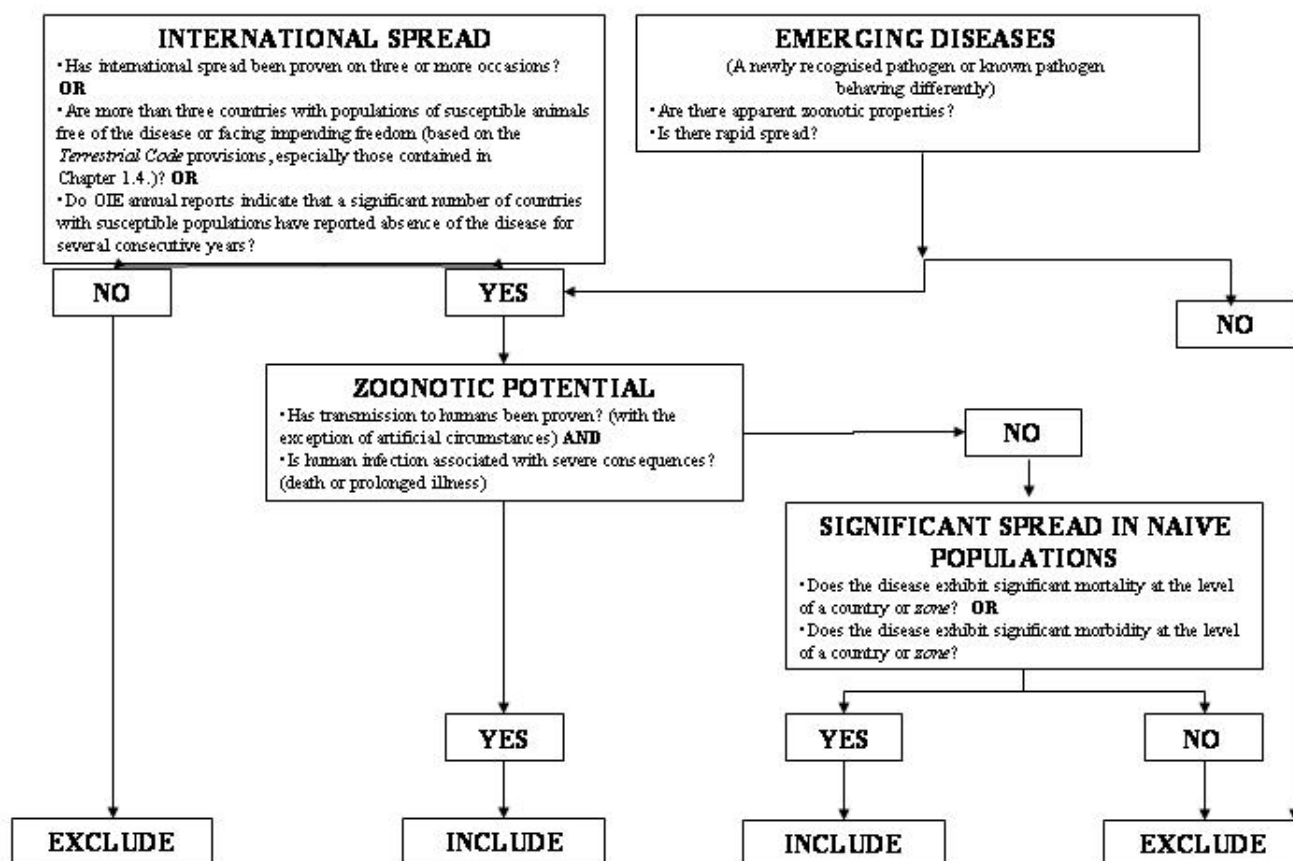
Article 1.2.1.

The criteria for the inclusion of a *disease* in the OIE List are as follows:

| Basic criteria | Parameters (at least one 'yes' answer means that the criterion has been met) |
|---|---|
| International Spread | Has international spread been proven on three or more occasions? OR Are more than three countries with populations of susceptible animals free of the <i>disease</i> or facing impending freedom (based on the relevant provisions of the <i>Terrestrial Code</i> , and in particular those contained in Chapter 1.4)? OR Do OIE annual reports indicate that a significant number of countries with susceptible populations have reported absence of the <i>disease</i> for several consecutive years? |
| Zoonotic Potential | Has transmission to humans been proven? (with the exception of artificial circumstances) AND Is human infection associated with severe consequences? (death or prolonged illness) |
| Significant Spread within Naïve Populations | Does the <i>disease</i> exhibit significant mortality at the level of a country or a <i>zone</i> ? OR Does the <i>disease</i> exhibit significant morbidity at the level of a country or a <i>zone</i> ? |
| Emerging Diseases | Are there apparent zoonotic properties or is there a rapid spread? |

Article 1.2.2.

The criteria in Article 1.2.1. above are applied according to the decision-making model shown below:



Article 1.2.3.

The following *diseases* are included in the OIE List.

In case of modifications of this list of animal *diseases* adopted by the General Assembly, the new list comes into force on 1 January of the following year.

1. The following *diseases* are included within the category of multiple species *diseases*:

- Anthrax
- Aujeszky's disease
- Bluetongue
- Brucellosis (*Brucella abortus*)
- Brucellosis (*Brucella melitensis*)
- Brucellosis (*Brucella suis*)
- Crimean Congo haemorrhagic fever
- Echinococcosis/hydatidosis
- Epizootic haemorrhagic disease
- Equine encephalomyelitis (Eastern)
- Foot and mouth disease

- Heartwater
 - Japanese encephalitis
 - New World screwworm (*Cochliomyia hominivorax*)
 - Old World screwworm (*Chrysomya bezziana*)
 - Paratuberculosis
 - Q fever
 - Rabies
 - Rift Valley fever
 - Rinderpest
 - Surra (*Trypanosoma evansi*)
 - Trichinellosis
 - Tularemia
 - Vesicular stomatitis
 - West Nile fever.
2. The following *diseases* are included within the category of cattle *diseases*:
- Bovine anaplasmosis
 - Bovine babesiosis
 - Bovine genital campylobacteriosis
 - Bovine spongiform encephalopathy
 - Bovine tuberculosis
 - Bovine viral diarrhoea
 - Contagious bovine pleuropneumonia
 - Enzootic bovine leukosis
 - Haemorrhagic septicaemia
 - Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
 - Lumpy skin disease
 - Theileriosis
 - Trichomonosis
 - Trypanosomosis (tsetse-transmitted).
3. The following *diseases* are included within the category of sheep and goat *diseases*:
- Caprine arthritis/encephalitis
 - Contagious agalactia
 - Contagious caprine pleuropneumonia
 - Enzootic abortion of ewes (ovine chlamydiosis)
 - Maedi–visna
 - Nairobi sheep disease
 - Ovine epididymitis (*Brucella ovis*)
 - Peste des petits ruminants

- Salmonellosis (*S. abortusovis*)
 - Scrapie
 - Sheep pox and goat pox.
4. The following *diseases* are included within the category of equine *diseases*:
- African horse sickness
 - Contagious equine metritis
 - Dourine
 - Equine encephalomyelitis (Western)
 - Equine infectious anaemia
 - Equine influenza
 - Equine piroplasmosis
 - Equine rhinopneumonitis
 - Equine viral arteritis
 - Glanders
 - Venezuelan equine encephalomyelitis.
5. The following *diseases* are included within the category of swine *diseases*:
- African swine fever
 - Classical swine fever
 - Nipah virus encephalitis
 - Porcine cysticercosis
 - Porcine reproductive and respiratory syndrome
 - Swine vesicular disease
 - Transmissible gastroenteritis.
6. The following *diseases* are included within the category of avian *diseases*:
- Avian chlamydiosis
 - Avian infectious bronchitis
 - Avian infectious laryngotracheitis
 - Avian mycoplasmosis (*Mycoplasma gallisepticum*)
 - Avian mycoplasmosis (*Mycoplasma synoviae*)
 - Duck virus hepatitis
 - Fowl typhoid
 - Highly pathogenic avian influenza in birds and low pathogenicity notifiable avian influenza in *poultry* as defined in Chapter 10.4.
 - Infectious bursal disease (Gumboro disease)
 - Newcastle disease
 - Pullorum disease
 - Turkey rhinotracheitis.

7. The following *diseases* are included within the category of lagomorph *diseases*:
 - Myxomatosis
 - Rabbit haemorrhagic disease.
 8. The following *diseases* are included within the category of bee *diseases*:
 - Acarapisosis of honey bees
 - American foulbrood of honey bees
 - European foulbrood of honey bees
 - Small hive beetle infestation (*Aethina tumida*)
 - *Tropilaelaps* infestation of honey bees
 - Varroosis of honey bees.
 9. The following *diseases* are included within the category of other *diseases*:
 - Camel pox
 - Leishmaniosis.
-

CHAPTER 1.3.

PRESCRIBED AND ALTERNATIVE DIAGNOSTIC TESTS FOR OIE LISTED DISEASES

NOTE

In many of the *Terrestrial Code* Chapters relating to specific *diseases*, the reader is referred to the *Terrestrial Manual* for information on OIE standards for the relevant diagnostic tests and vaccines.

However, some readers of the *Terrestrial Code* may need to know which diagnostic tests are recommended by the OIE for use in the *international trade of animals* or animal products, without requiring the details of how these tests should be performed.

The tables in this chapter have been included to meet this need. These tables show, for each OIE *listed diseases*, the diagnostic tests which can be used when the *Terrestrial Code* recommends a testing procedure.

These tests should be performed according to the specifications in the *Terrestrial Manual*, in order to avoid any differences between the *exporting* and *importing countries* in the interpretation of results.

In the tables, the diagnostic tests have been divided into two categories - 'prescribed tests' and 'alternative tests' (a similar categorisation is made in the *Terrestrial Manual*). The 'prescribed tests' are those which are considered optimal for determining the health status of *animals* before shipment. 'Alternative tests' do not demonstrate the absence of *infection* in the tested *animals* with the same level of confidence as the prescribed tests do. However, the OIE Terrestrial Animal Health Standards Commission considers that an 'alternative test', chosen by mutual agreement between the *importing* and *exporting countries*, can provide valuable information for evaluating the *risks* of any proposed trade in *animals* or animal products. The *disease* for which the *Terrestrial Code* does not require any test are not included in the tables.

ABBREVIATIONS

| | |
|----------|---|
| Agent id | Agent identification |
| Agg | Agglutination test |
| AGID | Agar gel immunodiffusion |
| BBAT | Buffered <i>Brucella</i> antigen test |
| CF | Complement fixation (test) |
| DTH | Delayed-type hypersensitivity |
| ELISA | Enzyme-linked immunosorbent assay |
| FAVN | Fluorescent antibody virus neutralisation |
| FPA | Fluorescence polarisation assay |
| HI | Haemagglutination inhibition |
| IFA | Indirect fluorescent antibody (test) |
| MAT | Microscopic agglutination test |
| NPLA | Neutralising peroxidase-linked assay |
| PCR | Polymerase chain reaction |
| PRN | Plaque reduction neutralisation |
| VN | Virus neutralisation |
| – | No test designated yet |

| Terrestrial Code Chapter No. | Terrestrial Manual Chapter No. | Disease name | Prescribed tests | Alternative tests |
|------------------------------|--------------------------------|--|---------------------------------------|-----------------------|
| OIE listed diseases | | | | |
| Multiple species | | | | |
| 8 2 | 2 1 2 | Aujeszky's disease | ELISA, VN | – |
| | 2 1 9 | Leptospirosis | – | MAT |
| 8 10 | 2 1 13 | Rabies | VN, ELISA | – |
| 8 9 | 2 1 11 | Paratuberculosis | – | DTH, ELISA |
| 8 6 | 2 1 6 | Heartwater | – | ELISA, IFA |
| 8 8 | 2 1 10 | New world screwworm (<i>Cochliomyia hominivorax</i>) and old world screwworm (<i>Chrysomya bezziana</i>) | – | Agent id |
| 8 13 | 2 1 16 | Trichinellosis | Agent id | ELISA |
| 8 5 | 2 1 5 | Foot and mouth disease | ELISA ¹ , VN | CF |
| 8 15 | 2 1 19 | Vesicular stomatitis | CF, ELISA, VN | – |
| 8 12 | 2 1 15 | Rinderpest | ELISA | VN |
| 8 3 | 2 1 3 | Bluetongue | Agent id, ELISA, PCR | AGID, VN |
| 8 11 | 2 1 14 | Rift Valley fever | VN | HI, ELISA |
| 8 14 | 2 1 18 | Tularemia | – | Agent id |
| Bovidae | | | | |
| 11 3 | 2 4 3 | Bovine brucellosis | BBAT, CF, ELISA, FPA | – |
| 11 4 | 2 4 5 | Bovine genital campylobacteriosis | Agent id | – |
| 11 6 | 2 4 7 | Bovine tuberculosis | Tuberculin test | Gamma interferon test |
| 11 9 | 2 4 11 | Enzootic bovine leukosis | AGID, ELISA | PCR |
| 11 11 | 2 4 13 | Infectious bovine rhinotracheitis/ infectious pustular vulvovaginitis | VN, ELISA, Agent id (semen only), PCR | – |
| 11 14 | 2 4 17 | Trichomonosis | Agent id | Mucus agg |
| 11 1 | 2 4 1 | Bovine anaplasmosis | – | CF, Agg card |
| 11 2 | 2 4 2 | Bovine babesiosis | – | ELISA, IFA, CF |
| 11 13 | 2 4 16 | Theileriosis | Agent id, IFA | – |
| 11 10 | 2 4 12 | Haemorrhagic septicaemia | – | Agent id |
| 11 12 | 2 4 14 | Lumpy skin disease | – | VN |
| 11 8 | 2 4 9 | Contagious bovine pleuropneumonia | CF, ELISA | – |
| Ovidae and capridae | | | | |
| 14 7 | 2 7 9 | Ovine epididymitis (<i>Brucella ovis</i>) | CF | ELISA |
| 14 1 | 2 7 2 | Caprine and ovine brucellosis (excluding <i>Brucella ovis</i>) | BBAT, CF, ELISA, FPA | Brucellin test |
| 14 2 | 2 7 3 | Caprine arthritis/encephalitis | AGID, ELISA | – |
| 14 6 | 2 7 4 | Maedi-visna | AGID, ELISA | – |

| Terrestrial Code Chapter No. | Terrestrial Manual Chapter No. | Disease name | Prescribed tests | Alternative tests |
|------------------------------------|--------------------------------|---|--|------------------------------|
| OIE listed diseases (contd) | | | | |
| Ovidae and capridae (contd) | | | | |
| 14 4 | 2 7 6 | Contagious caprine pleuropneumonia | CF | – |
| 14 5 | 2 7 7 | Enzootic abortion of ewes | – | CF |
| 14 8 | 2 7 11 | Peste des petits ruminants | VN | ELISA |
| 14 10 | 2 7 14 | Sheep pox and goat pox | – | VN |
| Equidae | | | | |
| 12 2 | 2 5 2 | Contagious equine metritis | Agent id | – |
| 12 3 | 2 5 3 | Dourine | CF | IFA, ELISA |
| 12 4 | 2 5 5 | Equine encephalomyelitis (Eastern and Western) | – | HI, CF, PRN |
| 12 5 | 2 5 6 | Equine infectious anaemia | AGID | ELISA |
| 12 6 | 2 5 7 | Equine influenza | – | HI |
| 12 7 | 2 5 8 | Equine piroplasmiasis | IFA, ELISA | CF |
| 12 8 | 2 5 9 | Equine rhinopneumonitis | – | VN |
| 12 10 | 2 5 11 | Glanders | Mallein test, CF | – |
| 12 9 | 2 5 10 | Equine viral arteritis | VN, Agent id (semen only) | – |
| 12 11 | 2 5 14 | Venezuelan equine encephalomyelitis | – | HI, CF, PRN |
| 12 1 | 2 5 1 | African horse sickness | CF, ELISA | VN, Agent id (real time PCR) |
| Suidae | | | | |
| 15 3 | 2 8 5 | Porcine brucellosis | BBAT, CF, ELISA, FPA | – |
| 15 6 | 2 8 11 | Transmissible gastroenteritis | – | VN, ELISA |
| 15 4 | 2 8 9 | Swine vesicular disease | VN | ELISA |
| 15 1 | 2 8 1 | African swine fever | ELISA | IFA |
| 15 2 | 2 8 3 | Classical swine fever | NPLA, FAVN, ELISA | – |
| Aves | | | | |
| 10 11 | 2 3 12 | Infectious bursal disease | – | AGID, ELISA |
| 10 12 | 2 3 13 | Marek's disease | – | AGID |
| 10 5 | 2 3 5 | Avian mycoplasmosis (<i>Mycoplasma gallisepticum</i>) | – | Agg, HI |
| 10 10 | 2 3 11 | Fowl typhoid and Pullorum disease | – | Agg, Agent id |
| 10 2 | 2 3 2 | Avian infectious bronchitis | – | VN, HI, ELISA |
| 10 3 | 2 3 3 | Avian infectious laryngotracheitis | – | AGID, VN, ELISA |
| 10 4 | 2 3 4 | Avian influenza | Virus isolation with pathogenicity testing | AGID, HI |
| 10 13 | 2 3 14 | Newcastle disease | Virus isolation | HI |
| Lagomorpha | | | | |
| 13 1 | 2 6 1 | Myxomatosis | – | AGID, CF, IFA |

| <i>Terrestrial Code</i> Chapter No. | <i>Terrestrial Manual</i> Chapter No. | Disease name | Prescribed tests | Alternative tests |
|--|--|-----------------------------|------------------|-------------------|
| OIE listed diseases (contd) | | | | |
| Aves (contd) | | | | |
| 13 2 | 2 6 2 | Rabbit haemorrhagic disease | – | ELISA, HI |

1 Please refer to the relevant Chapters in the *Terrestrial Manual* to verify which method is prescribed (this addition refers to reinstating the liquid-phase blocking ELISA as a prescribed test).

CHAPTER 1.4.

ANIMAL HEALTH SURVEILLANCE

Article 1.4.1.

Introduction and objectives

1. In general, *surveillance* is aimed at demonstrating the absence of *disease* or *infection*, determining the occurrence or distribution of *disease* or *infection*, while also detecting as early as possible exotic or *emerging diseases*. The type of *surveillance* applied depends on the desired outputs needed to support decision-making. The following recommendations may be applied to all *diseases*, their agents and all susceptible species (including *wildlife*) as listed in the *Terrestrial Code*, and are designed to assist with the development of *surveillance* methodologies. Except where a specific *surveillance* method for a certain *disease* or *infection* is already described in the *Terrestrial Code*, the recommendations in this chapter may be used to further refine the general approaches described for a specific *disease* or *infection*. Where detailed *disease/infection*-specific information is not available, suitable approaches should be based on the recommendations in this chapter.
2. Animal health *surveillance* is an essential tool to detect *disease* or *infection*, to monitor disease trends, to facilitate the control of *disease* or *infection*, to support claims for freedom from *disease* or *infection*, to provide data for use in *risk analysis*, for animal and/or public health purposes, and to substantiate the rationale for sanitary measures. Both domestic *animals* and *wild animals* are susceptible to certain *disease/infection*. However, *disease/infection* in *wild animals* does not mean that the same *disease/infection* is necessarily present in domestic *animals* in the same country or *zone* or vice versa. *Surveillance* data underpin the quality of disease status reports and should satisfy information requirements of *risk analysis* for *international trade* and for national decision-making. *Wildlife* may be included because they can serve as reservoirs and as indicators of human and domestic animal and *wildlife disease*. *Wildlife disease/infection surveillance* presents specific challenges that may differ significantly from *surveillance* in domestic *animals*.
3. Prerequisites to enable an OIE Member to provide information for the evaluation of its animal health status are:
 - a) that the Member complies with the provisions of Chapter 3.1. of the *Terrestrial Code*;
 - b) that, where possible, *surveillance* data be complemented by other sources of information (e.g. scientific publications, research data, documented field observations and other non-survey data);
 - c) that transparency in the planning and execution of *surveillance* activities and the analysis and availability of data and information, be maintained at all times, in accordance with Chapter 1.1. of the *Terrestrial Code*.
4. The objectives of this chapter are to:
 - a) provide guidance to the type of outputs that a *surveillance* system should generate;
 - b) provide recommendations to assess the quality of *disease/infection surveillance* systems.

Article 1.4.2.

Definitions

The following definitions apply for the purposes of this chapter:

Bias: means a tendency of an estimate to deviate in one direction from a true value.

Confidence: in the context of demonstrating freedom from *infection*, confidence is the probability that the type of *surveillance* applied would detect the presence of *infection* if the population were infected. The confidence depends on, among other parameters, the assumed prevalence of *infection*. The term refers to confidence in the ability of the *surveillance* applied to detect *disease/infection*, and is equivalent to the sensitivity of the *surveillance* system.

Probability sampling: means a sampling strategy in which every unit has a known non-zero probability of inclusion in the sample.

Sample: means the group of elements (sampling units) drawn from a population, on which tests are performed or parameters measured to provide *surveillance* information.

Sampling units: means the unit that is sampled, either in a random survey or in non-random *surveillance*. This may be an individual *animal* or a group of *animals* (e.g. an *epidemiological unit*). Together, they comprise the sampling frame.

Sensitivity: means the proportion of truly positive units that are correctly identified as positive by a test.

Specificity: means the proportion of truly negative units that are correctly identified as negative by a test.

Study population: means the population from which *surveillance* data are derived. This may be the same as the target population or a subset of it.

Surveillance system: means a method of *surveillance* that may involve one or more component activities that generates information on the health, disease or zoonosis status of animal populations.

Survey: means an investigation in which information is systematically collected, usually carried out on a sample of a defined population group, within a defined time period.

Target population: means the population about which conclusions are to be inferred.

Test: means a procedure used to classify a unit as either positive, negative or suspect with respect to a *disease* or an *infection*.

Test system: means a combination of multiple tests and rules of interpretation which are used for the same purpose as a test.

Article 1.4.3.

Principles of surveillance

1. Types of surveillance

- a) *Surveillance* may be based on many different data sources and can be classified in a number of ways, including:
 - i) the means by which data are collected (active versus passive *surveillance*);
 - ii) the disease focus (pathogen-specific versus general *surveillance*); and
 - iii) the way in which units for observation are selected (structured surveys versus non-random data sources).
- b) In this chapter, *surveillance* activities are classified as being based on:

EITHER

 - i) structured population-based surveys, such as:
 - systematic sampling at *slaughter*;
 - random surveys;
 - surveys for *infection* in clinically normal *animals*, including *wildlife*;

OR

ii) structured non-random *surveillance* activities, such as:

- *disease* reporting or notifications;
- control programmes/health schemes;
- targeted testing/screening;
- ante-mortem and post-mortem inspections;
- laboratory investigation records;
- biological specimen banks;
- sentinel units;
- field observations;
- farm production records;
- *wildlife* disease data.

c) In addition, *surveillance* data should be supported by related information, such as:

- i) data on the epidemiology of the *disease/infection*, including environmental, host population distribution, and climatic information;
- ii) data on animal movements, including transhumance, as well as natural *wildlife* migrations;
- iii) trading patterns for *animals* and animal products;
- iv) national animal health regulations, including information on compliance with them and their effectiveness;
- v) history of imports of potentially infected material; and
- vi) biosecurity measures in place;
- vii) the likelihood and consequence of *disease/infection* introduction.

d) The sources of evidence should be fully described. In the case of a structured survey, this should include a description of the sampling strategy used for the selection of units for testing. For structured non-random data sources, a full description of the system is required including the source(s) of the data, when the data were collected, and a consideration of any biases that may be inherent in the system.

2. Critical elements

In assessing the quality of a *surveillance* system, the following critical elements need to be addressed over and above quality of *Veterinary Services* (Chapter 3.1.).

a) Populations

Ideally, *surveillance* should be carried out in such a way as to take into account all animal species susceptible to the *infection* in a country, *zone* or *compartment*. The *surveillance* activity may cover all individuals in the population or part of them. When *surveillance* is conducted only on a *subpopulation*, care should be taken regarding the inferences made from the results.

Definitions of appropriate populations should be based on the specific recommendations of the disease chapters of the *Terrestrial Code*.

b) Time frame (or temporal values of surveillance data)

Surveillance should be carried out at a frequency that reflects the biology of the *infection* and the *risks* of its introduction.

c) Epidemiological unit

The relevant *epidemiological unit(s)* for the *surveillance* system should be defined to ensure that it is appropriate to meet the objectives of *surveillance*. Therefore, it should be chosen taking into account factors such as carriers, reservoirs, *vectors*, immune status, genetic resistance and age, sex, and other host criteria.

d) Clustering

Infection in a country, *zone* or *compartment* usually clusters rather than being uniformly or randomly distributed through a population. Clustering may occur at a number of different levels (e.g. a cluster of infected *animals* within a *herd*, a cluster of pens in a building, or a cluster of farms in a *compartment*). Clustering should be taken into account in the design of *surveillance* activities and the statistical analysis of *surveillance* data, at least at what is judged to be the most significant level of clustering for the particular animal population and *infection*.

e) Case definition

A case should be defined for each *disease/ infection* under *surveillance* using clear criteria, where they exist, the standards in the *Terrestrial Code*. For *wildlife disease/infection surveillance*, it is essential to correctly identify and report host animal taxonomy (including genus and species).

f) Analytical methodologies

Surveillance data should be analysed using appropriate methodologies, and at the appropriate organisational levels to facilitate effective decision making, whether it be planning interventions or demonstrating status.

Methodologies for the analysis of *surveillance* data should be flexible to deal with the complexity of real life situations. No single method is applicable in all cases. Different methodologies may be needed to accommodate the relevant host species, pathogens, varying production and *surveillance* systems, and types and amounts of data and information available.

The methodology used should be based on the best information available. It should also be in accordance with this chapter, fully documented and supported by reference to the scientific literature and other sources, including expert opinion. Sophisticated mathematical or statistical analyses should only be carried out when justified by the proper amount and quality of field data.

Consistency in the application of different methodologies should be encouraged and transparency is essential in order to ensure fairness and rationality, consistency in decision making and ease of understanding. The uncertainties, assumptions made, and the effect of these on the final conclusions should be documented.

g) Testing

Surveillance involves the detection of *disease* or *infection* by the use of appropriate case definitions based on the results of one or more tests for evidence of *infection* or immune status. In this context, a test may range from detailed laboratory examinations to field observations and the analysis of production records. The performance of a test at the population level (including field observations) may be described in terms of its sensitivity and specificity and predictive values. Imperfect sensitivity and/or specificity will have an impact on the conclusions from *surveillance*. Therefore, these parameters should be taken into account in the design of *surveillance* systems and analysis of *surveillance* data.

The values of sensitivity and specificity for the tests used should be specified for each species in which they may be used, and the method used to determine or estimate these values should be documented. Alternatively, where values for sensitivity and/or specificity for a particular test are specified in the *Terrestrial Manual*, these values may be used as a guide.

Samples from a number of *animals* or units may be pooled and subjected to a testing protocol. The results should be interpreted using sensitivity and specificity values that have been determined or estimated for that particular pool size and testing procedure.

h) Quality assurance

Surveillance systems should incorporate the principles of quality assurance and be subjected to periodic auditing to ensure that all components of the system function and provide verifiable documentation of procedures and basic checks to detect significant deviations of procedures from those documented in the design.

i) Validation

Results from animal health *surveillance* systems are subject to one or more potential biases. When assessing the results, care should be taken to identify potential biases that can inadvertently lead to an over-estimate or an under-estimate of the parameters of interest.

j) Data collection and management

The success of a *surveillance* system is dependent on a reliable process for data collection and management. The process may be based on paper records or computerised. Even where data are collected for non-survey purposes (e.g. during disease control interventions, inspections for movement control or during disease eradication schemes), the consistency and quality of data collection and event reporting in a format that facilitates analysis, is critical. Factors influencing the quality of collected data include:

- the distribution of, and communication between, those involved in generating and transferring data from the field to a centralised location; this requires effective collaboration among all stakeholders, such as government ministries, non-governmental organisations, and others, particularly for data involving *wildlife*;
- the ability of the data processing system to detect missing, inconsistent or inaccurate data, and to address these problems;
- maintenance of disaggregated data rather than the compilation of summary data;
- minimisation of transcription errors during data processing and communication.

Article 1.4.4.

Structured population-based surveys

In addition to the principles for *surveillance* discussed above, the following recommendations should be used when planning, implementing and analysing surveys.

1. Types of surveys

Surveys may be conducted on the entire target population (i.e. a census) or on a sample. A sample may be selected in either of the two following ways:

- a) non-probability based sampling methods, such as:
 - i) convenience;
 - ii) expert choice;
 - iii) quota;
- b) probability based sampling methods, such as:
 - i) simple random selection;
 - ii) cluster sampling;
 - iii) stratified sampling;
 - iv) systematic sampling.

Periodic or repeated surveys conducted in order to document *disease* freedom should be done using probability based sampling methods so that data from the study population can be extrapolated to the target population in a statistically valid manner.

The sources of information should be fully described and should include a detailed description of the sampling strategy used for the selection of units for testing. Also, consideration should be made of any biases that may be inherent in the survey design.

2. Survey design

The population of *epidemiological units* should first be clearly defined; hereafter sampling units appropriate for each stage, depending on the design of the survey, should be defined.

The design of the survey will depend on the size, structure and degree of understanding of the population being studied, the epidemiology of the *infection* and the resources available.

Data on *wild animal* population size often do not exist and, to the extent possible, should be determined before the survey is designed. The expertise of *wildlife* biologists may be sought in the gathering and interpretation of such population data. Historical population data should be updated since these may not reflect current populations.

3. Sampling

The objective of sampling from a population is to select a subset of units that is representative of the population of interest with respect to the objective of the study. Sampling should provide the best likelihood that the sample will be representative of the population, within the practical constraints imposed by different environments and production systems.

Specimens from *wildlife* for *surveillance* may be available from sources such as hunters and trappers, road-kills, *wild animal meat* markets, sanitary inspection of hunted *animals*, morbidity-mortality observations by the general public, *wildlife* rehabilitation centres, *wildlife* biologists and *wildlife* agency field personnel, farmers, and other landholders, naturalists and conservationists. *Wildlife* data such as census data, trends over time, and reproductive success can be used in a manner similar to farm production records for epidemiological purposes.

4. Sampling methods

When selecting *epidemiological units* from within a population, probability sampling (e.g. simple random selection) should be used. When this is not possible, sampling should provide the best practical chance of generating a sample that is representative of the target population.

In any case, the sampling method used at all stages should be fully documented.

5. Sample size

In general, surveys are conducted either to demonstrate the presence or absence of a factor (e.g. *infection*) or to estimate a parameter (e.g. the prevalence of *infection*). The method used to calculate sample size for surveys depends on the purpose of the survey, the expected prevalence, the level of confidence desired of the survey results and the performance of the tests used.

Article 1.4.5.

Structured non-random surveillance

Surveillance systems routinely use structured non-random data, either alone or in combination with surveys.

1. Common non-random surveillance sources

A wide variety of non-random *surveillance* sources may be available. These vary in their primary purpose and the type of *surveillance* information they are able to provide. Some *surveillance* systems are primarily established as early detection systems, but may also provide valuable information to demonstrate freedom from *infection*. Other systems provide cross-sectional information suitable for prevalence estimation, either once or repeatedly, while yet others provide continuous information,

suitable for the estimate of incidence data (e.g. disease reporting systems, sentinel sites, testing schemes).

a) Disease reporting or notification systems

Data derived from *disease* reporting systems can be used in combination with other data sources to substantiate claims of animal health status, to generate data for *risk analysis*, or for early detection. Effective laboratory support is an important component of any reporting system. Reporting systems relying on laboratory confirmation of suspect clinical cases should use tests that have a high specificity. Reports should be released by the laboratory in a timely manner, with the amount of time from *disease* detection to report generation minimized (to hours in the case of introduction of a foreign animal disease).

Whenever the responsibility for disease notification falls outside the scope of the *Veterinary Authority*, for example in some countries for *diseases* in *wildlife*, effective communication and data sharing should be established with the relevant authorities to ensure comprehensive and timely disease reporting.

b) Control programmes / health schemes

Animal *disease* control programmes or health schemes, while focusing on the control or eradication of specific *diseases*, should be planned and structured in such a manner as to generate data that are scientifically verifiable and contribute to structured *surveillance*.

c) Targeted testing / screening

This may involve testing targeted to selected sections of the population (subpopulations), in which *disease* is more likely to be introduced or found. Examples include testing culled and dead *animals*, swill fed *animals*, those exhibiting clinical signs, *animals* located in a defined geographic area and specific age or commodity group.

d) Ante-mortem and post-mortem inspections

Inspections of *animals* at *slaughterhouses* may provide valuable *surveillance* data. The sensitivity and specificity of *slaughterhouse* inspection for detecting the presence of specified *diseases* under the inspection system in place should be pre-determined. The accuracy of the inspection system will be influenced by:

- i) the training, experience and number of the inspection staff;
- ii) the involvement of the *Competent Authorities* in the supervision of ante-mortem and post-mortem inspections;
- iii) the quality of construction of the *slaughterhouse*, speed of the slaughter chain, lighting quality, etc.; and
- iv) staff morale and motivation for efficient performance.

Slaughterhouse inspections are likely to provide good coverage for particular age groups and geographical areas only. *Slaughterhouse surveillance* data are subject to biases in relation to target populations (e.g. only *animals* of a particular class and age are likely to be slaughtered for human consumption in significant numbers). Such biases need to be recognised when analysing *surveillance* data.

For traceback and analysis of spatial and *herd*-level coverage, there should be, if possible, an effective identification system that relates *animals* in the *slaughterhouse* to their locality of origin.

e) Laboratory investigation records

Analysis of laboratory investigation records may provide useful *surveillance* information. The coverage of the system will be increased if analysis is able to incorporate records from national, accredited, university and private sector laboratories. Valid analysis of data from different laboratories depends on the existence of standardised diagnostic procedures and standardised methods for interpretation and data recording. As with *abattoir* inspections, there needs to be a mechanism to relate specimens to the farm of origin.

f) Biological specimen banks

Specimen banks consist of stored specimens, gathered either through representative sampling or opportunistic collection or both. Specimen banks may contribute to retrospective studies, including providing support for claims of historical freedom from *infection*, and may allow certain studies to be conducted more quickly and at lower cost than alternative approaches.

g) Sentinel units

Sentinel units/sites involve the identification and regular testing of one or more of *animals* of known health/immune status in a specified geographical location to detect the occurrence of *disease/infection* (usually serologically). They are particularly useful for *surveillance* for *diseases/infections* with a strong spatial component, such as *vector-borne diseases/infections*. Sentinel units provide the opportunity to target *surveillance* depending on the likelihood of *infection* (related to *vector* habitats and host population distribution), cost and other practical constraints. Sentinel units may provide evidence of freedom from *infection*, or provide data on prevalence and incidence as well as the distribution of *disease/infection*.

h) Field observations

Clinical observations of *animals* in the field are an important source of *surveillance* data. The sensitivity and specificity of field observations may be relatively low, but these can be more easily determined and controlled if a clear standardised case definition is applied. Education of potential field observers in application of the case definition and reporting is an important component. Ideally, both the number of positive observations and the total number of observations should be recorded.

i) Farm production records

Systematic analysis of farm production records may be used as an indicator of the presence or absence of *disease/infection* at the *herd* or *flock* level. In general, the sensitivity of this approach may be quite high (depending on the *disease*), but the specificity is often quite low.

j) Wildlife data

Specimens from *wild animals* for *disease/infection surveillance* may be available from sources such as hunters and trappers, road-kills, *wild animal meat* markets, sanitary inspection of hunted *animals*, morbidity and mortality observations by the general public, *wildlife* rehabilitation centres, *wildlife* biologists and *wildlife* agency field personnel, farmers and other landholders, naturalists and conservationists. *Wildlife* data such as census data, trends over time, and reproductive success can be used in a manner similar to farm production records for epidemiological purposes.

2. Critical elements for structured non-random surveillance

There are a number of critical factors which should be taken into account when using structured non-random *surveillance* data such as coverage of the population, duplication of data, and sensitivity and specificity of tests that may give rise to difficulties in the interpretation of data. *Surveillance* data from non-random sources can, however, be a cost-efficient method of early detection, and may increase the level of confidence or detect a lower level of prevalence compared to random sampling surveys.

3. Analytical methodologies

Different scientifically valid methodologies may be used for the analysis of non-random *surveillance* data. Where no data are available, estimates based on expert opinions, gathered and combined using a formal, documented and scientifically valid methodology may be used.

4. Combination of multiple sources of data

The methodology used to combine the evidence from multiple data sources should be scientifically valid, and fully documented including references to published material.

Surveillance information gathered from the same country, *zone* or *compartment* at different times may provide cumulative evidence of animal health status. Such evidence gathered over time may be combined to provide an overall level of confidence. For instance, repeated annual surveys may be analysed to provide a cumulative level of confidence. However, a single larger survey, or the combination of data collected during the same time period from multiple random or non-random sources, may be able to achieve the same level of confidence in a shorter period of time.

Analysis of *surveillance* information gathered intermittently or continuously over time should, where possible, incorporate the time of collection of the information to take the decreased value of older information into account. The sensitivity, specificity and completeness of data from each source should also be taken into account for the final overall confidence level estimation.

Article 1.4.6.

Surveillance to demonstrate freedom from disease/infection

1. Requirements to declare a country, zone or compartment free from disease/infection without pathogen specific surveillance

This article provides general principles for declaring a country, *zone* or *compartment* free from *disease/infection* in relation to the time of last occurrence and in particular for the recognition of historical freedom.

The provisions of this article are based on the principles described in Article 1.4.3. of this chapter and the following premises:

- in the absence of *disease* and vaccination, the animal population would become susceptible over a period of time;
- the disease agents to which these provisions apply are likely to produce identifiable clinical signs in susceptible *animals*;
- competent and effective *Veterinary Services* will be able to investigate, diagnose and report disease, if present;
- *disease/infection* can affect both *wild animals* and domestic *animals*;
- the absence of *disease/infection* over a long period of time in a susceptible population can be substantiated by effective disease investigation and reporting by a Member.

a) Historically free

Unless otherwise specified in the relevant *disease* chapter, a country, *zone* or *compartment* may be recognised free from *infection* without formally applying a pathogen-specific *surveillance* programme when:

- i) there has never been occurrence of *disease*, or
- ii) eradication has been achieved or the *disease/infection* has ceased to occur for at least 25 years,

provided that for at least the past 10 years:

- iii) it has been a *notifiable disease*;
- iv) an early detection system has been in place for all relevant species;
- v) measures to prevent *disease/infection* introduction have been in place; no vaccination against the *disease* has been carried out unless otherwise provided in the *Terrestrial Code*;
- vi) *infection* is not known to be established in *wildlife* within the country or *zone* intended to be declared free. A country or *zone* cannot apply for historical freedom if there is any evidence of *infection* in *wildlife*.

b) Last occurrence within the previous 25 years

Countries, *zones* or *compartments* that have achieved eradication (or in which the *disease/infection* has ceased to occur) within the previous 25 years, should follow the pathogen-specific *surveillance* requirements in the *Terrestrial Code* if they exist. In the absence of specific requirements for *surveillance* in the *Terrestrial Code*, countries should follow the general recommendations on *surveillance* to demonstrate animal health status outlined in this chapter provided that for at least the past 10 years:

- i) it has been a *notifiable disease*;
- ii) an early detection system has been in place;
- iii) measures to prevent *disease/infection* introduction have been in place;
- iv) no vaccination against the *disease* has been carried out unless otherwise provided in the *Terrestrial Code*;
- v) *infection* is not known to be established in *wildlife* within the country or *zone* intended to be declared free. A country or *zone* cannot apply for freedom if there is any evidence of *infection* in *wildlife*.

2. Recommendations for the discontinuation of pathogen-specific screening after recognition of freedom from infection

A country, *zone* or *compartment* that has been recognised as free from *infection* following the provisions of the *Terrestrial Code* may discontinue pathogen-specific screening while maintaining the infection-free status provided that:

- a) it is a *notifiable disease*;
- b) an early detection system is in place;
- c) measures to prevent *disease/infection* introduction are in place;
- d) vaccination against the *disease* is not applied;
- e) *infection* is known not to be established in *wildlife*. It can be difficult to collect sufficient epidemiological data to prove absence of *disease/infection* in *wild animal* populations. In such circumstances, a range of supporting evidence should be used to make this assessment.

3. Self declaration of disease/infection

Members may make a self declaration that a country, *zone* or *compartment* is free from a *listed disease*, based on the implementation of the provisions of the *Terrestrial Code* and the *Terrestrial Manual* - see relevant provisions in Chapter 1.6. The *Veterinary Authority* may wish to transmit this information to the OIE *Headquarters*, which may publish the information.

4. International recognition of disease/infection free status

For *diseases* for which procedures exist whereby the OIE can officially recognise the existence of a *disease/infection* free country or *zone*, a Member wishing to apply for recognition of this status shall, via its Permanent Delegate, send to the OIE all the relevant documentation relating to the country or *zone* concerned. Such documentation should be presented according to the recommendations prescribed by the OIE for the appropriate animal *diseases*.

5. Demonstration of freedom from infection

A *surveillance* system to demonstrate freedom from *infection* should meet the following requirements in addition to the general requirements for *surveillance* outlined in Article 1.4.3. of this chapter.

Freedom from *infection* implies the absence of the pathogenic agent in the country, *zone* or *compartment*. Scientific methods cannot provide absolute certainty of the absence of *infection*. Demonstrating freedom from *infection* involves providing sufficient evidence to demonstrate (to a level of confidence acceptable to Members) that *infection* with a specified pathogen is not present in a population. In practice, it is not possible to prove (i.e., be 100% confident) that a population is free

from *infection* (unless every member of the population is examined simultaneously with a perfect test with both sensitivity and specificity equal to 100%). Instead, the aim is to provide adequate evidence (to an acceptable level of confidence), that *infection*, if present, is present in less than a specified proportion of the population.

However, finding evidence of *infection* at any level in the target population automatically invalidates any freedom from *infection* claim unless otherwise stated in the relevant *disease* chapter. The implications of *disease/infection* in *wildlife* for the status of domestic *animals* in the same country or *zone* should be assessed in each situation, as indicated in the relevant chapter on each *disease* in the *Terrestrial Code*.

Evidence from targeted, random or non-random data sources, as stated before, may increase the level of confidence or be able to detect a lower level of prevalence with the same level of confidence compared to structured surveys.

Article 1.4.7.

Surveillance for distribution and occurrence of infection

Surveillance to determine distribution and occurrence of *infection* or of other relevant health related events is widely used to assess progress in the control or eradication of selected *diseases* and pathogens and as an aid to decision making. It has, however, relevance for the international movement of *animals* and products when movement occurs among infected countries.

In contrast to *surveillance* to demonstrate freedom from *infection*, *surveillance* used to assess progress in control or eradication of selected *diseases* and pathogens is usually designed to collect data about a number of variables of animal health relevance, for example:

1. prevalence or incidence of *infection*;
2. morbidity and mortality rates;
3. frequency of *disease/infection risk* factors and their quantification;
4. frequency distribution of *herd* sizes or the sizes of other *epidemiological units*;
5. frequency distribution of antibody titres;
6. proportion of immunised *animals* after a vaccination campaign;
7. frequency distribution of the number of days elapsing between suspicion of *infection* and *laboratory* confirmation of the diagnosis and/or to the adoption of control measures;
8. farm production records;
9. role of *wildlife* in maintenance or transmission of the *infection*.

CHAPTER 1.5.

SURVEILLANCE FOR ARTHROPOD VECTORS OF ANIMAL DISEASES

Article 1.5.1.

Introduction

Vector-borne diseases are of increasing importance economically and to human and animal health.

Environmental (including climate change), sociological and economical changes may affect the distribution and impact of these *diseases*.

Improved understanding of the distribution and population dynamics of the *vectors* is a key element for assessing and managing the *risks* associated with *vector-borne* animal and zoonotic *diseases*.

The *Terrestrial Code* contains recommendations for the *surveillance* of several *vector-borne diseases* and general recommendations for animal health *surveillance*.

The need has arisen to complement these general recommendations on *surveillance* with advice on the *surveillance* for *vectors* themselves. This chapter only addresses *surveillance* for arthropod *vectors*.

For the purpose of trade, it should be noted that there is no conclusive relationship between the presence of a *vector(s)* and the disease status of a country/*zone*, and also that the apparent absence of a *vector(s)* does not by itself confirm *vector-free* status.

A decision tree for *vector surveillance* is presented in Figure 1.

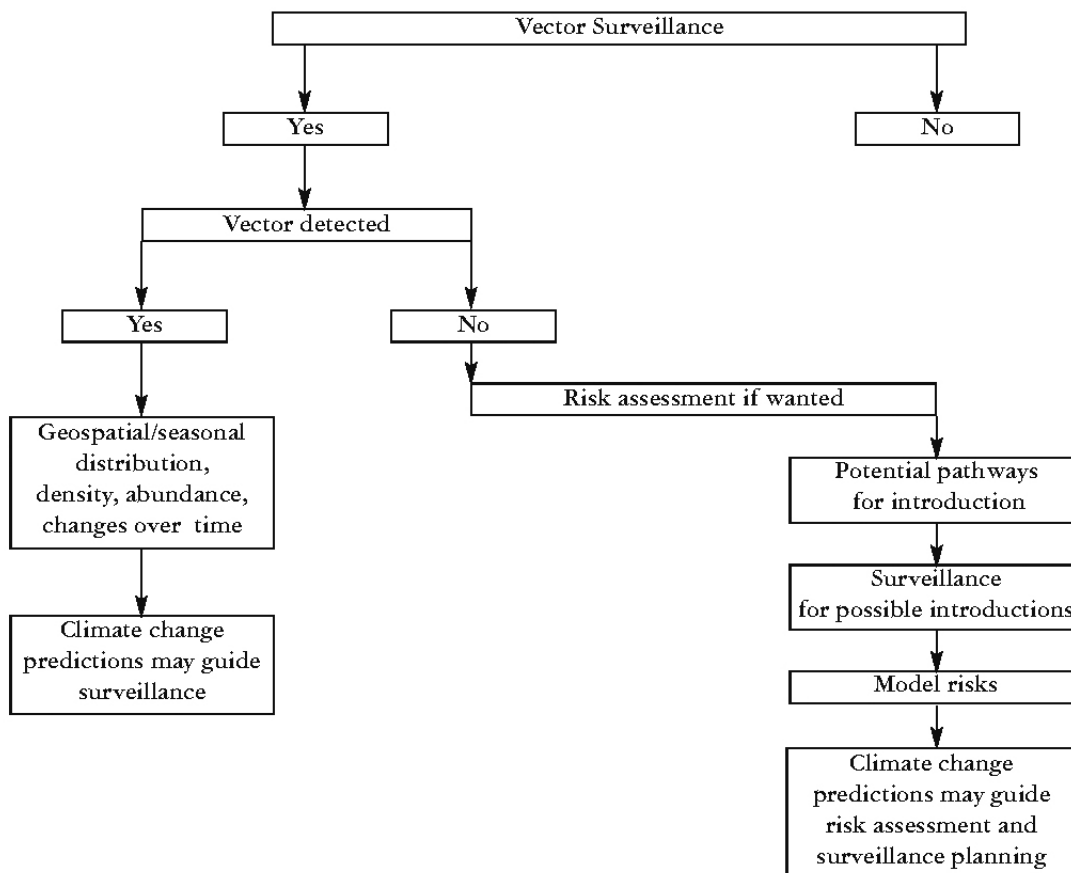
Article 1.5.2.

Objectives

The objective of these recommendations is to provide methods for:

1. gathering up-to-date information on the spatial and temporal distribution and abundance of *vectors* of the arthropod-borne *listed diseases* and *emerging diseases*;
2. monitoring changes in the spatial and temporal distribution and abundance of these *vectors*;
3. collecting relevant data to inform *risk assessment* (including *vector competency*) and *risk management* of these *vector-borne diseases*;
4. detecting the presence of specific *vectors* or confirming their absence;
5. understanding pathways of entry for *vectors* and *vector-borne* pathogenic agents.

Figure 1 Decision Tree for Vector Surveillance



Article 1.5.3.

Sampling methodology

1. Sampling plan

- a) The objective of the *surveillance* programme should be determined and stated before planning begins.
- b) Available historical data on the *vector* or the *disease* for the country or *zone* should be collated and assessed.
- c) The sampling plan should consider the following:
 - i) the biology and ecology of the *vector(s)*,
 - ii) the presence, distribution and abundance of the *vectors'* host animal population(s),
 - iii) the environmental, climatic, ecological and topographic conditions of relevance to *vector* ecology,
 - iv) the need for a *risk assessment* to indicate the areas at highest *risk* of introduction of a *vector* that is unlikely to be present.

- d) Sampling should be aimed at:
- i) establishing *vector* presence or confirming *vector* absence in the country or *zone*,
 - ii) describing the distribution of the *vector(s)* within the country or *zone*,
 - iii) providing additional information on *vector* density and spatial/temporal variability (both over the short- and the long-term),
 - iv) early detection of *vectors* or *vector*-borne pathogenic agents in areas with *risks* of entry and establishment.
- e) The sampling plan should be designed to provide appropriate estimates of the indicators listed above. Consideration should be given to the following:
- i) The recommended general approach to sampling is via a three-stage hierarchy:
 - Stratification based on ecological criteria (where possible), and *risk assessment* for *vector* introduction,
 - subdivision of strata into spatial sampling units, and
 - establishment of actual sampling sites within selected spatial sampling units.
 - ii) If adequate entomological, epidemiological and historical data and/or expert opinion exists, the sampling plan may be refined or targeted by defining strata which are as homogeneous as possible with respect to the following known or suspected *risk*-factors, as appropriate for the country or *zone*:
 - domestic or wild populations of host *animals* preferred by the *vector*,
 - *vector* habitat suitability,
 - climatic patterns (including seasonal),
 - areas endemically and/or epidemically affected by the *disease(s)* of concern,
 - areas of known *vector* occurrences,
 - fringe *zone(s)* around areas of known *vector* occurrences or other high *risks* areas for *vector* introduction, such as ports,
 - areas in which the *disease(s)* or *vector(s)* of concern have not been reported currently or historically,
 - each stratum (or the whole country or *zone*, if not stratified) should be divided into spatial sampling units according to standard methodologies such as a grid system,
 - the number and size of the spatial sampling units should be defined to provide appropriate estimates of the indicators listed above,
 - the number and location of actual sampling sites within each spatial sampling unit also should be defined to provide appropriate estimates of the indicators listed above,
 - different levels of sampling intensity (spatial sampling unit size, number of units sampled, number of sites sampled within units, and sampling frequency) may be applied to different strata into which the country or *zone* has been divided. For example, more intensive sampling might be carried out in strata where *vector* presence seems most likely, based on biological or statistical criteria.

2. Sampling methods

Many sampling methods have been developed for the capture of *vector* arthropods, and these differ according to the *disease/vector* system under consideration.

- a) The collection methods used should be adapted as required to ensure reasonable confidence of collecting the *vector(s)* of concern.

- b) Collection methods should obtain the various developmental stages (such as eggs, larvae, nymphs, adults) and adult age categories, as appropriate to the species in question and the objectives of the *surveillance*. For example, if a *vector* is not believed to be present, collection methods should target the developmental stages most likely to be introduced, or that are most readily detected. If the *vector* is present, life stages required to estimate population survival rates and population dynamics in relation to *disease* transmission should be collected.
- c) Different collection methods may be required to obtain samples from a single *vector* species, depending on the life stage or place of capture (such as from the environment or from the host *animals*). The collection method should be appropriate to the species and life stage of interest.

The collection methods should preserve the *vector(s)* in a manner suitable for their morphological identification or identification with molecular techniques. Where the purpose of sampling is to detect or isolate a pathogenic agent(s), specific protocols should be followed to ensure the samples are suitable for these assays.

3. Data management, analysis and interpretation

Data management and analytical methodologies should be done in accordance with Chapter 1.4.

CHAPTER 1.6.

PROCEDURES FOR SELF DECLARATION AND FOR OFFICIAL RECOGNITION BY THE OIE

Article 1.6.1.

General principles

Members may wish to make a self declaration as to the freedom of a country, *zone* or *compartment* from an OIE *listed disease*. The Member may inform the OIE of its claimed status and the OIE may publish the claim. Publication does not imply endorsement of the claim. The OIE does not publish self declaration for bovine spongiform encephalopathy (BSE), foot and mouth disease (FMD), rinderpest and contagious bovine pleuropneumonia (CBPP).

Members may request official recognition by the OIE as to:

1. the risk status of a country or *zone* with regard to BSE;
2. the freedom of a country or *zone* from FMD, with or without vaccination;
3. the freedom of a country from rinderpest;
4. the freedom of a country or *zone* from CBPP.

The OIE does not grant official recognition for other *diseases*.

In these cases, Members should present documentation setting out the compliance of the *Veterinary Services* of the applicant country or *zone* with the provisions of Chapters 1.1., 3.1. and 3.2. of the *Terrestrial Code* and with the provisions of the relevant *disease* chapters in the *Terrestrial Code* and the *Terrestrial Manual*.

When requesting official recognition of disease status, the Member should submit to the OIE Scientific and Technical Department a dossier providing the information requested (as appropriate) in Articles 1.6.3. (for BSE), 1.6.4. (for FMD), 1.6.5. (for rinderpest) or 1.6.6. (for CBPP).

The OIE framework for the official recognition and maintenance of disease status is described in Resolution N° XXII (administrative procedures) and Resolution N° XXIII (financial obligations) adopted during the 76th General Session in May 2008.

Article 1.6.2.

Endorsement by the OIE of an official control programme for FMD

Members may wish to request an endorsement by the OIE of their *official control programme* for FMD.

When requesting endorsement by the OIE of an *official control programme* for FMD, the Member should submit to the OIE Scientific and Technical Department a dossier providing the information requested in Article 1.6.7.

Article 1.6.3.

Questionnaire on bovine spongiform encephalopathy

GENERAL INTRODUCTION

Acceptance of this submission is based on the compliance of the *Veterinary Service* of the applicant country, *zone* or *compartment* with the provisions of Chapter 3.1. of the *Terrestrial Code* and the compliance of BSE diagnostic laboratories with the provisions of Chapter 1.1.3. of the *Terrestrial Manual*. Documentary evidence should be provided to support this based on Chapter 3.2. of the *Terrestrial Code*.

Article 11.5.2. of the *Terrestrial Code* Chapter on BSE prescribes the criteria to determine the BSE risk status of a the cattle population of a country, *zone* or *compartment*. This document is the means whereby a claim for negligible risk (Article 11.5.3.) or controlled risk (Article 11.5.4.) can be made to the OIE.

The document comprises the following:

- Section 1 – Risk assessment (see Section 1 of Article 11.5.2.)
- Section 2 – Other requirements of Sections 2 to 4 of Article 11.5.2.
 - Ongoing awareness programme
 - Compulsory notification and investigation
 - Diagnostic capability
- Section 3 – Surveillance (Article 11.5.2. and Articles 11.5.20. to 11.5.22.)
- Section 4 – BSE history of the country, *zone* or *compartment* (Articles 11.5.3. and 11.5.4.).

N.B. Where, during the completion of this questionnaire, the submitting *Veterinary Service* provides documentation regarding the legislation under which it is mandated, it should provide the content of any legal act described (in one of the three official languages of OIE), as well as the dates of official publication and implementation. Submitting countries are encouraged to follow the format and numbering used in this document.

SECTION 1: RISK ASSESSMENT (see Point 1 of Article 11.5.2.)

Introduction

The first step in determining the BSE risk status of the cattle population of a country, *zone* or *compartment* is to conduct a *risk assessment* (reviewed annually), based on Sections 2 and 3 and Chapter 4.3. of the *Terrestrial Code*, identifying all potential factors for BSE occurrence and their historic perspective.

Documentation guidelines

This section provides guidance on the data gathering and presentation of information required to support the risk release and exposure assessments in respect of:

Release assessment:

1. The potential for the release of the BSE agent through importation of *meat-and-bone meal* or *greaves*.
2. The potential for the release of the BSE agent through the importation of potentially infected live cattle.
3. The potential for the release of the BSE agent through the importation of potentially infected products of bovine origin.

Exposure assessment:

4. The origin of bovine carcasses, by-products and *slaughterhouse* waste, the parameters of the rendering processes and the methods of cattle feed production.
5. The potential for the exposure of cattle to the BSE agent through consumption of *meat-and-bone meal* or *greaves* of bovine origin.

In each of the five areas of release and exposure assessment that follow, the contributor is guided in terms of the question, the rationale and the evidence required to support the country, *zone* or *compartment* status claim.

Release assessment

1. The potential for the release of the BSE agent through importation of meat-and-bone meal or greaves

Question to be answered: Has *meat-and-bone meal*, *greaves*, or feedstuffs containing either, been imported within the past eight years? If so, where from and in what quantities?

Rationale: Knowledge of the origin of *meat-and-bone meal*, *greaves* or feedstuffs containing either *meat-and-bone meal* or *greaves*, is necessary to assess the risk of release of BSE agent. *Meat-and-bone meal* and *greaves* originating in countries of high BSE risk pose a higher release risk than that from low risk countries. *Meat-and-bone meal* and *greaves* originating in countries of unknown BSE risk pose an unknown release risk.

This point is irrelevant if the exposure assessment outlined below in Article 11.5.27. indicates that *meat-and-bone meal* or *greaves* has not been fed, either deliberately or accidentally, in the past eight years. Nevertheless, documentation should be provided on the control systems (including relevant legislation) in place to ensure that *meat-and-bone meal* or *greaves* has not been fed to cattle.

Evidence required:

- a) Documentation to support claims that *meat-and-bone meal*, *greaves* or feedstuffs containing either *meat-and-bone meal* or *greaves* have not been imported, OR
- b) Documentation on annual volume, by country of origin, of *meat-and-bone meal*, *greaves* or feedstuffs containing them imported during the past eight years.
- c) Documentation describing the species composition of the imported *meat-and-bone meal*, *greaves* or feedstuffs containing them.
- d) Documentation, from the *Veterinary Service* of the country of production, supporting why the rendering processes used to produce *meat-and-bone meal*, *greaves* or feedstuffs containing them would have inactivated, or significantly reduced the titre of BSE agent, should it be present.

2. The potential for the release of the BSE agent through the importation of potentially infected live cattle

Question to be answered: Have live cattle been imported within the past seven years?

Rationale: The release risks are dependent on:

- country, *zone* or *compartment* of origin and its BSE status, which will change as more data become available; this may result from the detection of clinical *disease*, or following active *surveillance*, or assessment of geographical BSE risk;
- feeding and management of the imported cattle in the country, *zone* or *compartment* of origin;
- use to which the *commodity* has been put as apart from representing risk of developing clinical *disease*, the *slaughter*, rendering and recycling in *meat-and-bone meal* of imported cattle represents a potential route of exposure of indigenous livestock even if *meat-and-bone meal* and *greaves*, or feedstuffs containing them, have not been imported;
- dairy versus meat breeds, where there are differences in exposure in the country, *zone* or *compartment* of origin because feeding practices result in greater exposure of one category;
- age at *slaughter*.

Evidence required:

- a) Documentation including tables on the country, *zone* or *compartment* of origin of imports. This should identify the country, *zone* or *compartment* of origin of the cattle, the length of time they

lived in that country, *zone* or *compartment* and of any other country in which they have resided during their lifetime.

- b) Documentation including tables describing origin and volume of imports.
 - c) Documentation demonstrating that risks are periodically reviewed in light of evolving knowledge on the BSE status of the country, *zone* or *compartment* of origin.
3. **The potential for the release of the BSE agent through the importation of potentially infected products of bovine origin**

Question to be answered: What products of bovine origin have been imported within the past seven years?

Rationale: The release risks are dependent on:

- the origin of the cattle products and whether these products contain tissues known to contain BSE infectivity (Article 11.5.13.);
- country, *zone* or *compartment* of origin and its BSE status, which will change as more data become available; this may result from the detection of clinical *disease*, or following active *surveillance*, or assessment of geographical BSE risk;
- feeding and management of the cattle in the country, *zone* or *compartment* of origin;
- use to which the *commodity* has been put as apart from representing risk of developing clinical *disease*, the *slaughter*, rendering and recycling in *meat-and-bone meal* of imported cattle represents a potential route of exposure of indigenous livestock even if *meat-and-bone meal* and *greaves*, or feedstuffs containing them, have not been imported;
- dairy versus meat breeds, where there are differences in exposure in the country, *zone* or *compartment* of origin because feeding practices result in greater exposure of one category;
- age at *slaughter*.

Evidence required:

- a) Documentation on the country, *zone* or *compartment* of origin of imports. This should identify the country, *zone* or *compartment* of origin of cattle from which the products were derived, the length of time they lived in that country, *zone* or *compartment* and of any other country in which they have resided during their lifetime.
- b) Documentation describing origin and volume of imports.
- c) Documentation demonstrating that risks are periodically reviewed in light of evolving knowledge on the BSE status of the country, *zone* or *compartment* of origin.

Exposure assessment

4. **The origin of bovine carcasses, by-products and slaughterhouse waste, the parameters of the rendering processes and the methods of cattle feed production**

Question to be answered: How have bovine carcasses, by-products and *slaughterhouse* waste been processed over the past eight years?

Rationale: The overall risk of BSE in the cattle population of a country, *zone* or *compartment* is proportional to the level of known or potential exposure to BSE infectivity and the potential for recycling and amplification of the infectivity through livestock feeding practices. For the *risk assessment* to conclude that the cattle population of a country, *zone* or *compartment* is of negligible or controlled BSE risk, it must have demonstrated that appropriate measures have been taken to manage any risks identified. If potentially infected cattle or contaminated materials are rendered, there is a risk that the resulting *meat-and-bone meal* could retain BSE infectivity. Where *meat-and-bone meal* is utilized in the production of any cattle feed, the risk of cross-contamination exists.

Evidence required:

- a) Documentation describing the collection and disposal of fallen stock and materials condemned as unfit for human consumption.
 - b) Documentation including tables describing the fate of imported cattle, including their age at *slaughter* or death.
 - c) Documentation describing the definition and disposal of specified risk material, if any.
 - d) Documentation describing the rendering process and parameters used to produce *meat-and-bone meal* and *greaves*.
 - e) Documentation describing methods of animal feed production, including details of ingredients used, the extent of use of *meat-and-bone meal* in any livestock feed, and measures that prevent cross-contamination of cattle feed with ingredients used in monogastric feed.
 - f) Documentation describing the end use of imported cattle products and the disposal of waste.
 - g) Documentation describing monitoring and enforcement of the above.
5. **The potential for the exposure of cattle to the BSE agent through consumption of meat-and-bone meal or greaves of bovine origin**

Question to be answered: Has *meat-and-bone meal* or *greaves* of bovine origin been fed to cattle within the past eight years (Articles 11.5.3. and 11.5.4. in the *Terrestrial Code*)?

Rationale: If cattle have not been fed products of bovine origin (other than milk or blood) potentially containing *meat-and-bone meal* or *greaves* of bovine origin within the past eight years, *meat-and-bone meal* and *greaves* can be dismissed as a risk.

In the case of countries applying for negligible risk status, it will be required to demonstrate that the ruminant feed ban has been effective for at least eight years following the birth of the youngest *case*.

Evidence required:

- a) Documentation describing the use of imported *meat-and-bone meal* and *greaves*, including the feeding of any animal species.
- b) Documentation describing the use made of *meat-and-bone meal* and *greaves* produced from domestic cattle, including the feeding of any animal species.
- c) Documentation on the measures taken to control cross-contamination of cattle feedstuffs with the *meat-and-bone meal* and *greaves* including the risk of cross-contamination during production, transport, storage and feeding.
- d) Documentation, in the form of the following table, on the audit findings in rendering plants and feed mills processing ruminant material or mixed species containing ruminant material, related to the prohibition of the feeding to ruminants of *meat-and-bone meal* and *greaves*.

| Year (information should be provided for each of the 8 years for effectiveness is claimed) | Type of plant (renderer or feed mill) | Number of plants processing ruminant material | Number of plants in (A) inspected | Total number of visual inspections in (B) | Total number of plants in (B) with infractions | Total number of inspected plants in (B) with sampling | Total number of plants in (C) with positive test results |
|---|--|---|-----------------------------------|---|--|---|--|
| | | (A) | (B) | | | (C) | |
| Year 1 | Renderer | | | | | | |
| | Feed mill | | | | | | |
| Year 2, etc | Renderer | | | | | | |
| | Feed mill | | | | | | |

- e) Documentation, in the form of the following table, on the audit findings in rendering plants and feed mills processing non-ruminant material, related to the prohibition of the feeding of *meat-and-bone meal* and *greaves* to ruminants.

| Year (information should be provided for each of the 8 years for effectiveness is claimed) | Type of plant (renderer or feed mill) | Number of plants processing non-ruminant material | Number of plants in (A) inspected | Total number of visual inspections in (B) | Total number of plants in (B) with infractions | Total number of inspected plants in (B) with sampling | Total number of plants in (C) with positive test results |
|---|---------------------------------------|---|-----------------------------------|---|--|---|--|
| | | (A) | (B) | | | (C) | |
| Year 1 | Renderer | | | | | | |
| | Feed mill | | | | | | |
| Year 2, etc | Renderer | | | | | | |
| | Feed mill | | | | | | |

- f) Documentation, in the form of the following table, on each plant above processing ruminant material or mixed species containing ruminant material with infractions, specifying the type of infraction and the method of resolution.

| Year (information should be provided for each of the 8 years for effectiveness is claimed) | Type of plant (renderer or feed mill) | Plant ID | Nature of infraction | Method of resolution | Follow-up results |
|---|---------------------------------------|-----------|----------------------|----------------------|-------------------|
| Year 1 | Renderer | ID 1 | | | |
| | | ID 2 | | | |
| | | ID 3, etc | | | |
| | Feed mill | ID 1 | | | |
| | | ID 2 | | | |
| | | ID 3, etc | | | |
| Year 2, etc | Renderer | | | | |
| | Feed mill | | | | |

- g) Documentation, in the form of the following table, on each plant above processing non-ruminant material with infractions, specifying the type of infraction and the method of resolution.

| Year (information should be provided for each of the 8 years for effectiveness is claimed) | Type of plant (renderer or feed mill) | Plant ID | Nature of infraction | Method of resolution | Follow-up results |
|---|---------------------------------------|-----------|----------------------|----------------------|-------------------|
| Year 1 | Renderer | ID 1 | | | |
| | | ID 2 | | | |
| | | ID 3, etc | | | |
| | Feed mill | ID 1 | | | |
| | | ID 2 | | | |
| | | ID 3, etc | | | |
| Year 2, etc | Renderer | | | | |
| | Feed mill | | | | |

- h) Documentation explaining why, in light of the findings displayed in the preceding four tables, it is considered that there has been no significant exposure of cattle to the BSE agent through consumption of *meat-and-bone meal* or *greaves* of bovine origin.

- i) Documentation of husbandry practices (multiple species farms) which could lend themselves to cross-contamination of cattle feed with *meat-and-bone meal* and *greaves* destined to other species.

SECTION 2: OTHER REQUIREMENTS (see Points 2 to 4 of Article 11.5.2.)

1. Awareness programme (see Point 2 of Article 11.5.2.)

Questions to be answered:

- Is there an awareness programme?
- What is the target audience?
- What is the curriculum and how long has it been in place?
- Is there a contingency and/or preparedness plan that deals with BSE?

Rationale:

An awareness programme is essential to ensure detection and reporting of BSE, especially in countries of low prevalence and competing differential diagnoses.

Evidence required:

- a) Documentation indicating when the awareness programme was instituted and its continuous application and geographical coverage.
- b) Documentation on the number and occupation of persons who have participated in the awareness programme (veterinarians, producers, workers at auctions, *slaughterhouses*, etc.).
- c) Documentation of materials used in the awareness programme (the manual, supportive documents, or other teaching materials).
- d) Documentation on the contingency plan.

2. Compulsory notification and investigation (see Point 3 of Article 11.5.2.)

Questions to be answered:

- What guidance is given to veterinarians, producers, workers at auctions, *slaughterhouses*, etc.) in terms of the criteria that would initiate the investigation of an *animal* as a BSE suspect? Have these criteria evolved?
- What were the date and content of the legal act making notification of BSE suspects compulsory?
- What are the measures in place to stimulate notification, such as compensation payments or penalties for not notifying a suspect?

Rationale:

The socio-economic implications associated with BSE require that there be incentives and/or obligations to notify and investigate suspect *cases*.

Evidence required:

- a) Documentation on the date of official publication and implementation of compulsory notification. Including a brief description of incentives and penalties.
- b) Documentation on the manual of procedures for investigation of suspect *animals* and follow-up of positive findings.

3. Examination in an approved laboratory of brain or other tissues collected within the framework of the aforementioned surveillance system (see Point 4 of Article 11.5.2.)

Questions to be answered:

- Are the diagnostic procedures and methods those described in Chapter 2.4.6. of the *Terrestrial Manual*?

- Have these diagnostic procedures and methods been applied through the entire *surveillance* period?

Rationale:

The OIE only recognizes for the purpose of this submission samples that have been tested in accordance with the *Terrestrial Manual*.

Evidence required:

- a) Documentation as to the approved laboratories where samples of cattle tissues from the country, *zone* or *compartment* are examined for BSE. (If this is located outside the country, information should be provided on the cooperation agreement).
- b) Documentation of the diagnostic procedures and methods used.
- c) Documentation that the diagnostic procedures and methods have been applied through the entire *surveillance* period.

SECTION 3: BSE SURVEILLANCE AND MONITORING SYSTEM (see Point 4 of Article 11.5.2.)

Questions to be answered:

- Does the BSE *surveillance* programme comply with the guidelines in Articles 11.5.20. to 11.5.22. of the *Terrestrial Code*?
- What were the results of the investigations?

Rationale:

Point 4 of Article 11.5.2. and Articles 11.5.20. to 11.5.22. prescribe the number of cattle, by subpopulation, that need to be tested in order to ensure the detection of BSE at or above a minimal threshold prevalence.

Evidence required:

1. Documentation that the samples collected are representative of the distribution of cattle population in the country, *zone* or *compartment*.
2. Documentation of the methods applied to assess the ages of *animals* sampled and the proportions for each method (individual identification, dentition, other methods to be specified).
3. Documentation of the means and procedures whereby samples were assigned to the cattle subpopulations described in Article 11.5.21., including the specific provisions applied to ensure that *animals* described as clinical met the conditions of Point 1 of Article 11.5.21.
4. Documentation of the number of *animals* meeting the conditions in Point 1 of Article 11.5.21. as compared to the numbers of clinical samples submitted in previous years in accordance to the former provisions in the *Terrestrial Code*, and explanation of possible differences.
5. Documentation, based on the following table, of all clinically suspect *cases* notified complying with the definition in Point 1 of Article 11.5.21.

| Laboratory identification number | Age | Clinical signs | Point of detection (farm, market channels, slaughterhouse) |
|----------------------------------|-----|----------------|--|
| | | | |
| | | | |

6. Documentation according to the following table, that the number of target points applicable to the country, *zone* or *compartment* and its BSE *surveillance* requirements (Type A or type B *surveillance* as a result of the *risk assessment* of section 1) are met as described in Articles 11.5.21. and 11.5.22.

| SUMMARY TABLE FOR BSE SURVEILLANCE | | | | | | | | |
|---|-----------------------------|--------|--------------|--------|--------------------|--------|------------------|--------|
| Year: (complete a separate table for each year of surveillance) | | | | | | | | |
| | Surveillance subpopulations | | | | | | | |
| | Routine slaughter | | Fallen stock | | Casualty slaughter | | Clinical suspect | |
| | Samples | Points | Samples | Points | Samples | Points | Samples | Points |
| >1 and <2 years | | | | | | | | |
| ≥2 and <4 years | | | | | | | | |
| ≥4 and <7 years | | | | | | | | |
| ≥7 and <9 years | | | | | | | | |
| ≥9 years | | | | | | | | |
| Subtotals | | | | | | | | |
| Total points | | | | | | | | |

7. Indicate the number of adult cattle (over 24 months of age) in the country, *zone* or *compartment*.

SECTION 4: BSE HISTORY OF THE COUNTRY, ZONE OR COMPARTMENT (see Articles 11.5.3. and 11.5.4.)

Questions to be answered:

- Has BSE occurred in the country, *zone* or *compartment*?
- How has it been dealt with?

Rationale:

The categorization of a country, *zone* or *compartment* in either negligible or controlled risk is dependent upon, the outcome of the *risk assessment* described in Section 1, compliance with the provisions described in Section 2, the results of *surveillance* described in Section 3, and the history of BSE in the country, *zone* or *compartment*. This section provides the opportunity to describe the BSE history in the country, *zone* or *compartment*.

Evidence required:

1. Documentation of whether a *case* of BSE has ever been diagnosed in the country, *zone* or *compartment*.
In the case of positive BSE findings:
 2. Documentation on the origin of each BSE *case* in respect to the country, *zone* or *compartment*. Indicate the birth date and place of birth.
 3. Indicate the most recent year of birth in relation to all BSE *cases*.
 4. Documentation that:
 - the *case(s)* and all the progeny of female *cases*, born within two years prior to or after clinical onset of the *disease*, and
 - all cattle which, during their first year of life, were reared with the BSE *cases* during their first year of life, and which investigation showed consumed the same potentially contaminated feed during that period, or
 - if the results of the investigation are inconclusive, all cattle born in the same *herd* as, and within 12 months of the birth of, the BSE *cases*,
 - if alive in the country, *zone* or *compartment*, are permanently identified, and their movements controlled, and, when slaughtered or at death, are completely destroyed.

Article 1.6.4.

Questionnaires on foot and mouth disease

FMD FREE COUNTRY WHERE VACCINATION IS NOT PRACTISED

Report of a Member which applies for recognition of status,
under Chapter 8.5 of the *Terrestrial Code* (2011),
as a FMD free country not practising vaccination

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country including physical, geographical and other factors that are relevant to FMD dissemination, countries sharing common borders and other countries that although may not be adjacent share a link for the potential introduction of *disease*. Provide a map identifying the factors above.
- b) Livestock industry. Provide a general description of the livestock industry in the country.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to FMD.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all FMD related activities. Provide maps and tables wherever possible.
- c) Role of farmers, industry and other relevant groups in FMD *surveillance* and control (include a description of training and awareness programmes on FMD).
- d) Role of private veterinary profession in FMD *surveillance* and control.

3. FMD eradication

- a) History. Provide a description of the FMD history in the country, date of first detection, origin of *infection*, date of eradication (date of last *case*), types and subtypes present.
- b) Strategy. Describe how FMD was controlled and eradicated (e.g. stamping-out, modified stamping-out, zoning), provide time frame for eradication.
- c) Vaccines and vaccination. Was FMD vaccine ever used? If so, when was the last vaccination carried out? What species were vaccinated?
- d) Legislation, organisation and implementation of the FMD eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability. How are animal movements controlled in the country? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. FMD diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3., and 2.1.5. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is FMD laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow-up procedures and the time frame for obtaining results.
- b) Provide an overview of the FMD approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

5. FMD surveillance

Provide documentary evidence that *surveillance* for FMD in the country complies with the provisions of Articles 8.5.42. to 8.5.47. and Article 8.5.49. of the *Terrestrial Code* and Chapter 2.1.5. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical suspicion. What are the criteria for raising a suspicion of FMD? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis).
- b) Serological surveillance. Are serological surveys conducted? If so, provide detailed information on the survey design (confidence level, sample size, stratification). How frequently are they conducted? Are *wildlife* susceptible species included in serological surveys? Provide a summary table indicating, for the past two years, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis). Provide details on follow-up actions taken on all suspicious and positive results. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
- c) Livestock demographics and economics. What is the susceptible animal population by species and production systems? How many *herds*, *flocks*, etc. of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
- d) Wildlife demographics. What susceptible species are present in the country? Provide estimates of population sizes and geographic distribution. What are the measures in place to prevent contact between domestic and *wildlife* susceptible species?
- e) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?

6. FMD prevention

- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries or *zones* that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries.

- b) Are there controls in place for the feeding of swill containing animal products to pigs? If so provide information on the extent of the practice, and describe controls and *surveillance* measures.

- c) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals* or their products? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals* and products, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* and their products for the past two years, specifying country or *zone* of origin, species and volume.

- i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
- ii) Provide a description on the methods used for the safe disposal of waste from international traffic, who is responsible and provide a summary, for the past two years, of the quantity disposed of.
- iii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
- *animals*,
 - genetic material (semen and embryos),
 - animal products,
 - veterinary medicinal products (i.e. biologics).
- iv) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of FMD.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of an FMD *outbreak*:
- i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
- ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with FMD;
- iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken. Include details on antigen and vaccine banks;
- iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
- v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.

8. Compliance with the Terrestrial Code

- a) In addition to the documentary evidence that the provisions of Article 8.5.2. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating:
 - i) there has been no *outbreak* of FMD during the past 12 months;
 - ii) no evidence of FMDV infection has been found during the past 12 months;
 - iii) no vaccination against FMD has been carried out during the past 12 months,
- b) and should confirm that since the cessation of vaccination no *animals* vaccinated against FMD have been imported.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 8.5.9. of the *Terrestrial Code* and provide detailed information as specified in sections 3.a), 3.b), 3.c) and 5.b) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

FMD FREE COUNTRY WHERE VACCINATION IS PRACTISED

Report of a Member which applies for recognition of status,
under Chapter 8.5 of the *Terrestrial Code* (2011),
as a FMD free country practising vaccination

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country including physical, geographical and other factors that are relevant to FMD dissemination, countries sharing common borders and other countries that although may not be adjacent share a link for the potential introduction of *disease*. Provide a map identifying the factors above.
- b) Livestock industry. Provide a general description of the livestock industry in the country.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to FMD.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all FMD related activities. Provide maps and tables wherever possible.
- c) Role of farmers, industry and other relevant groups in FMD *surveillance* and control (include a description of training and awareness programmes on FMD).
- d) Role of private veterinary profession in FMD *surveillance* and control.

3. FMD eradication

- a) History. Provide a description of the FMD history in the country, date of first detection, origin of *infection*, date of eradication (date of last *case*), types and subtypes present.
- b) Strategy. Describe how FMD was controlled and eradicated (e.g. stamping-out, modified stamping-out, zoning), provide time frame for eradication.
- c) Vaccines and vaccination. What type of vaccine is used? What species are vaccinated? Provide evidence that the vaccine used complies with Chapter 2.1.5. of the *Terrestrial Manual*. Describe the vaccination programme, including records kept, and provide evidence to show its effectiveness (e.g. vaccination coverage, serosurveillance, etc.).

- d) Legislation, organisation and implementation of the FMD eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability, including vaccination data. How are animal movements controlled in the country? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. FMD diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.1.5. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is FMD laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to and the follow-up procedures and the time frame for obtaining results.
- b) Provide an overview of the FMD approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

5. FMD surveillance

Provide documentary evidence that *surveillance* for FMD in the country complies with the provisions of Articles 8.5.42. to 8.5.47. and Article 8.5.49. of the *Terrestrial Code* and Chapter 2.1.5. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical suspicion. What are the criteria for raising a suspicion of FMD? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis).
- b) Surveillance. Are serological and virological surveys conducted, in particular applying the provisions of Article 8.5.46.? If so, provide detailed information on the survey design (confidence level, sample size, stratification). How frequently are they conducted? Are *wildlife* susceptible species included in serological surveys? Provide a summary table indicating, for the past two years, the number of samples tested for FMD and FMDV, species, type of sample, testing method(s) and results (including differential diagnosis). Provide details on follow-up actions taken on all suspicious and positive results. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
- c) Livestock demographics and economics. What is the susceptible animal population by species and production systems? How many *herds*, *flocks*, etc. of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.

- d) Wildlife demographics. What susceptible species are present in the country? Provide estimates of population sizes and geographic distribution. What are the measures in place to prevent contact between domestic and *wildlife* susceptible species?
- e) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?

6. FMD prevention

- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries or *zones* that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries.
- b) Are there controls in place for the feeding of swill containing animal products to pigs? If so provide information on the extent of the practice, and describe controls and *surveillance* measures.
- c) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals* or their products? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals* and products, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* and their products for the past two years, specifying country or *zone* of origin, species and volume.

- i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
- ii) Provide a description on the methods used for the safe disposal of waste from international traffic, who is responsible and provide a summary, for the past two years, of the quantity disposed of.
- iii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
 - *animals*,
 - genetic material (semen and embryos),
 - animal products,
 - veterinary medicinal products (i.e. biologics).
- iv) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of FMD.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?

- c) In the event of an FMD *outbreak*:
- i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
 - ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with FMD;
 - iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken. Include details on antigen and vaccine banks;
 - iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
 - v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.

8. Compliance with the *Terrestrial Code*

In addition to the documentary evidence that the provisions of Article 8.5.3. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating that there has been no *outbreak* of FMD for the past two years and no evidence of FMDV circulation for the past 12 months, with documented evidence that:

- a) *surveillance* for FMD and FMDV circulation in accordance with Articles 8.5.42. to 8.5.47. and Article 8.5.49. is in operation, and that regulatory measures for the prevention and control of FMD have been implemented;
- b) routine vaccination is carried out for the purpose of the prevention of FMD;
- c) the vaccine used complies with the standards described in the *Terrestrial Manual*.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 8.5.9. of the *Terrestrial Code* and provide detailed information as specified in sections 3.a), 3.b), 3.c) and 5.b) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED

Report of a Member which applies for recognition of status,
under Chapter 8.5 of the *Terrestrial Code* (2011),
as a FMD free zone not practising vaccination

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country and the *zone* including physical, geographical and other factors that are relevant to FMD dissemination, countries or *zones* sharing common borders and other countries or *zones* that although may not be adjacent share a link for the potential introduction of *disease*. The boundaries of the *zone* must be clearly defined, including a *protection zone* if applied. Provide a digitalised, geo-referenced map with a precise text description of the geographical boundaries of the *zone*.
- b) Livestock industry. Provide a general description of the livestock industry in the country and the *zone*.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to FMD.

- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all FMD related activities in the country and in the *zone*. Provide maps and tables wherever possible.
 - c) Role of farmers, industry and other relevant groups in FMD *surveillance* and control (include a description of training and awareness programmes on FMD).
 - d) Role of private veterinary profession in FMD *surveillance* and control.
3. FMD eradication
- a) History. Provide a description of the FMD history in the country and *zone*, provide date of first detection, origin of *infection*, date of eradication in the *zone* (date of last *case*), types and subtypes present.
 - b) Strategy. Describe how FMD was controlled and eradicated in the *zone* (e.g. stamping-out, modified stamping-out), provide time frame for eradication.
 - c) Vaccines and vaccination. If vaccination is used in the rest of the country, what type of vaccine is used? What species are vaccinated? Provide evidence that the vaccine used complies with Chapter 2.1.5. of the *Terrestrial Manual*. Describe the vaccination programme, including records kept, and provide evidence to show its effectiveness (e.g. vaccination coverage, serosurveillance, etc.).
 - d) Legislation, organisation and implementation of the FMD eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
 - e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability. How are animal movements controlled in and between *zones* of the same or different status, in particular if the provisions of the *Terrestrial Code* in Article 8.5.10. are applied? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.
4. FMD diagnosis
- Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.1.5. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:
- a) Is FMD laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to. Indicate the laboratory(ies) where samples originating from the *zone* are diagnosed, the follow-up procedures and the time frame for obtaining results.
 - b) Provide an overview of the FMD approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

5. FMD surveillance

Provide documentary evidence that *surveillance* for FMD in the *zone* complies with the provisions of Articles 8.5.42. to 8.5.47. and Article 8.5.49. of the *Terrestrial Code* and Chapter 2.1.5. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical suspicion. What are the criteria for raising a suspicion of FMD? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis).
- b) Serological surveillance. Are serological surveys conducted? If so, provide detailed information on the survey design (confidence level, sample size, stratification). How frequently are they conducted? Are *wildlife* susceptible species included in serological surveys? Provide a summary table indicating, for the past two years, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis). Provide details on follow-up actions taken on all suspicious and positive results. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
- c) Livestock demographics and economics. What is the susceptible animal population by species and production systems in the country and the *zone*? How many *herds*, *flocks*, etc. of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
- d) Wildlife demographics. What susceptible species are present in the country and the *zone*? Provide estimates of population sizes and geographic distribution. What are the measures in place to prevent contact between domestic and *wildlife* susceptible species?
- e) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?

6. FMD prevention

- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries and *zones* that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries and *zones*.

If the FMD free *zone* without vaccination is situated in an FMD infected country or borders an infected country or *zone*, describe the animal health measures implemented to effectively prevent the introduction of the agent, taking into consideration physical or geographical barriers.

- b) Are there controls in place for the feeding of swill containing animal products to pigs? If so provide information on the extent of the practice, and describe controls and *surveillance* measures.
- c) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals* or their products into a free *zone*? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals* and products, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* and their products for the past two years, specifying country or *zone* of origin, species and volume.

- i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an

independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.

- ii) Provide a description on the methods used for the safe disposal of waste from international traffic, who is responsible and provide a summary, for the past two years, of the quantity disposed of.
- iii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
 - *animals*,
 - genetic material (semen and embryos),
 - animal products,
 - veterinary medicinal products (i.e. biologics).
- iv) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of FMD.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of an FMD *outbreak*:
 - i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
 - ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with FMD;
 - iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken. Include details on antigen and vaccine banks;
 - iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
 - v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.

8. Compliance with the *Terrestrial Code*

In addition to the documentary evidence that the provisions of Article 8.5.4. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating:

- a) there has been no *outbreak* of FMD during the past 12 months;
- b) no evidence of FMDV infection has been found during the past 12 months;
- c) no vaccination against FMD has been carried out during the past 12 months;
- d) no vaccinated *animal* has been introduced into the *zone* since the cessation of vaccination, except in accordance with Article 8.5.10.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 8.5.9. of the *Terrestrial Code* and provide detailed information as specified in sections 3.a), 3.b), 3.c) and 5.b) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

FMD FREE ZONE WHERE VACCINATION IS PRACTISED

Report of a Member which applies for recognition of status,
under Chapter 8.5 of the *Terrestrial Code* (2011),
as a FMD free zone practising vaccination

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country and the *zone* including physical, geographical and other factors that are relevant to FMD dissemination, countries or *zones* sharing common borders and other countries or *zones* that although may not be adjacent share a link for the potential introduction of *disease*. The boundaries of the *zone* must be clearly defined, including a *protection zone* if applied. Provide a digitalised, geo-referenced map with a precise text description of the geographical boundaries of the *zone*.
- b) Livestock industry. Provide a general description of the livestock industry in the country and the *zone*.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to FMD.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all FMD related activities in the country and in the *zone*. Provide maps and tables wherever possible.
- c) Role of farmers, industry and other relevant groups in FMD *surveillance* and control (include a description of training and awareness programmes on FMD).
- d) Role of private veterinary profession in FMD *surveillance* and control.

3. FMD eradication

- a) History. Provide a description of the FMD history in the country and *zone*, provide date of first detection, origin of *infection*, date of eradication in the *zone* (date of last *case*), types and subtypes present.
- b) Strategy. Describe how FMD was controlled and eradicated in the *zone* (e.g. stamping-out, modified stamping-out), provide time frame for eradication.
- c) Vaccines and vaccination. What type of vaccine is used? What species are vaccinated? Provide evidence that the vaccine used complies with Chapter 2.1.5. of the *Terrestrial Manual*. Describe the vaccination programme in the country and in the *zone*, including records kept, and provide evidence to show its effectiveness (e.g. vaccination coverage, serosurveillance, etc.).
- d) Legislation, organisation and implementation of the FMD eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability, including vaccination data. How are animal movements controlled in and between *zones* of the same or different status, in particular if the provisions of the *Terrestrial Code*

in Article 8.5.10. are applied? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. FMD diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.1.5. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is FMD laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow-up procedures and the time frame for obtaining results. Indicate the laboratory(ies) where samples originating from the *zone* are diagnosed.
- b) Provide an overview of the FMD approved laboratories, in particular to address the following points.
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

5. FMD surveillance

Provide documentary evidence that *surveillance* for FMD in the *zone* complies with the provisions of Articles 8.5.42. to 8.5.47. and Article 8.5.49. of the *Terrestrial Code* and Chapter 2.1.5. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical suspicion. What are the criteria for raising a suspicion of FMD? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for FMDV, species, type of sample, testing method(s) and results (including differential diagnosis).
- b) Surveillance. Are serological and virological surveys conducted, in particular applying the provisions of Article 8.5.46.? If so, provide detailed information on the survey design (confidence level, sample size, stratification). How frequently are they conducted? Are *wildlife* susceptible species included in serological surveys? Provide a summary table indicating, for the past two years, the number of samples tested for FMD and FMDV, species, type of sample, testing method(s) and results (including differential diagnosis). Provide details on follow-up actions taken on all suspicious and positive results. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
- c) Livestock demographics and economics. What is the susceptible animal population by species and production systems in the country and the *zone*? How many *herds*, *flocks*, etc. of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
- d) Wildlife demographics. What susceptible species are present in the country and in the *zone*? Provide estimates of population sizes and geographic distribution. What are the measures in place to prevent contact between domestic and *wildlife* susceptible species?
- e) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?

6. FMD prevention

- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries and *zones* that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries and *zones*.

If the FMD free *zone* with vaccination is situated in an FMD infected country or borders an infected country or *zone*, describe the animal health measures implemented to effectively prevent the introduction of the agent, taking into consideration physical or geographical barriers.

- b) Are there controls in place for the feeding of swill containing animal products to pigs? If so provide information on the extent of the practice, and describe controls and *surveillance* measures.
- c) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals* or their products into a free *zone*? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals* and products, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* and their products for the past two years, specifying the country or *zone* of origin, the species and the volume.

- i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
- ii) Provide a description on the methods used for the safe disposal of waste from international traffic, who is responsible and provide a summary, for the past two years, of the quantity disposed of.
- iii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
- *animals*,
 - genetic material (semen and embryos),
 - animal products,
 - veterinary medicinal products (i.e. biologics).
- iv) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of FMD.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of an FMD *outbreak*:
- i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;

- ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with FMD;
- iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken. Include details on antigen and vaccine banks;
- iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
- v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.

8. Compliance with the Terrestrial Code

In addition to the documentary evidence that the provisions of Article 8.5.5. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating:

- a) that there has been no *outbreak* of FMD for the past two years,
- b) no evidence of FMDV circulation for the past 12 months,
- c) *surveillance* for FMD and FMDV circulation in accordance with Articles 8.5.42. to 8.5.47. and Article 8.5.49. is in operation.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 8.5.9. of the *Terrestrial Code* and provide detailed information as specified in sections 3.a), 3.b), 3.c) and 5.b) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

Article 1.6.5.

Questionnaire on rinderpest

RINDERPEST FREE COUNTRY

Report of a Member which applies for recognition of status,
under Chapter 8.12 of the *Terrestrial Code* (2011),
as a rinderpest free country

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country including physical, geographical and other factors that are relevant to rinderpest dissemination, countries sharing common borders and other countries that although may not be adjacent share a link for the potential introduction of *disease*. Provide a map identifying the factors above.
- b) Livestock industry. Provide a general description of the livestock industry in the country.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to rinderpest.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the

Terrestrial Manual and describe how the *Veterinary Services* supervise and control all rinderpest related activities. Provide maps and tables wherever possible.

- c) Role of farmers, industry and other relevant groups in rinderpest *surveillance* and control (include a description of training and awareness programmes on rinderpest).
- d) Role of private veterinary profession in rinderpest *surveillance* and control.

3. Rinderpest eradication

- a) History. Provide a description of the rinderpest history in the country, date of first detection, origin of *infection*, date of eradication (date of last *case*), lineage(s) present.
- b) Strategy. Describe how rinderpest was controlled and eradicated (e.g. stamping-out, modified stamping-out, zoning), provide time frame for eradication.
- c) Vaccines and vaccination. Was rinderpest vaccine ever used? If so, when was the last vaccination carried out? What species were vaccinated? Has heterologous vaccine been used in cattle, buffalo or yak?
- d) Legislation, organisation and implementation of the rinderpest eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability. How are animal movements controlled in the country? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. Rinderpest diagnosis

Provide evidence that a system is in place for the rapid confirmation of a suspected *outbreak* i.e. that the provisions in Chapters 1.1.2., 1.1.3. and 2.1.15. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is rinderpest laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow up procedures and the time frame for obtaining results.
- b) Provide an overview of the rinderpest approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

5. Rinderpest surveillance

Provide documentary evidence that *surveillance* for rinderpest in the country complies with the provisions of Articles 8.12.20. to 8.12.27. of the *Terrestrial Code* and Chapter 2.1.15. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical suspicion. What are the criteria for raising a suspicion of rinderpest? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for rinderpest virus, species, type of sample, testing method(s) and

results (including differential diagnosis). In particular, provide evidence of compliance with the provisions of Articles 8.12.20. to 8.12.27. of the *Terrestrial Code*.

- b) Serological surveillance. Are serological surveys conducted? If so, provide detailed information on the survey design in accordance with Articles 8.12.20. to 8.12.27. of the *Terrestrial Code* (see footnote ¹). Are *wildlife* susceptible species included in serological surveys? If not, explain the rationale. Provide a summary table indicating, for the past two years, the number of samples tested for rinderpest virus, species, type of sample, testing method(s) and results (including differential diagnosis). Provide details on follow-up actions taken on all suspicious and positive results. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
 - c) Livestock demographics and economics. What is the susceptible animal population by species and production systems? How many *herds*, *flocks*, etc. of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
 - d) Wildlife demographics. What susceptible species are present in the country? Provide estimates of population sizes and geographic distribution. What are the measures in place to prevent contact between domestic and *wildlife* susceptible species?
 - e) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?
6. Rinderpest prevention
- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries.
 - b) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals* or their products? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals* and products, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* and their products for the past two years, specifying country or *zone* of origin, species and volume.

 - a) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
 - b) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
 - i) *animals*,
 - ii) genetic material (semen and embryos),
 - iii) animal products,
 - iv) veterinary medicinal products (i.e. biologics).

- c) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.
7. Control measures and contingency planning
- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of rinderpest.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of a rinderpest *outbreak*:
- i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
- ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with rinderpest;
- iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken;
- iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
- v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.
8. Compliance with the *Terrestrial Code*

The Delegate of the country must submit documentary evidence that the provisions of Article 8.12.2. or point 1 of Article 1.4.6. (historical freedom) of the *Terrestrial Code* have been properly implemented and supervised.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 8.12.3. of the *Terrestrial Code* and provide detailed information as specified in Sections 3.a), 3.b), 3.c) and 5.b) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

Article 1.6.6.

Questionnaires on contagious bovine pleuropneumonia

CONTAGIOUS BOVINE PLEUROPNEUMONIA FREE COUNTRY

Report of a Member which applies for recognition of status,
under Chapter 11.8 of the *Terrestrial Code* (2011),
as a bovine contagious pleuropneumonia infection free country

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country including physical, geographical and other factors that are relevant to CBPP dissemination, countries sharing common borders and other countries that although may not be adjacent share a link for the potential introduction of *disease*. Provide a map identifying the factors above.
- b) Livestock industry. Provide a general description of the livestock industry in the country.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to CBPP.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all CBPP related activities. Provide maps and tables wherever possible.
- c) Role of farmers, industry and other relevant groups in CBPP *surveillance* and control (include a description of training and awareness programmes on CBPP).
- d) Role of private veterinary profession in CBPP *surveillance* and control.

3. CBPP eradication

- a) History. Provide a description of the CBPP history in the country, date of first detection, origin of *infection*, date of eradication (date of last *case*).
- b) Strategy. Describe how CBPP was controlled and eradicated (e.g. stamping-out, modified stamping-out, zoning), provide time frame for eradication.
- c) Vaccines and vaccination. Was CBPP vaccine ever used? If so, when was the last vaccination carried out?
- d) Legislation, organisation and implementation of the CBPP eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability. How are animal movements controlled in the country? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. CBPP diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.4.9. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is CBPP laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow-up procedures and the time frame for obtaining results.
- b) Provide an overview of the CBPP approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Biosecurity measures applied.
 - iv) Details of the type of tests undertaken including procedures to isolate and identify *M. mycoides* subsp. *mycoides* SC as opposed to *M. mycoides* subsp. *mycoides* LC.

5. CBPP surveillance

Provide documentary evidence that *surveillance* for CBPP in the country complies with the provisions of Articles 11.8.12. to 11.8.17. of the *Terrestrial Code* and Chapter 2.4.9. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical surveillance. What are the criteria for raising a suspicion of CBPP? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*,

the number of samples tested for CBPP agent, species, type of sample, testing method(s) and results (including differential diagnosis).

- b) Slaughterhouses, slaughter slabs, abattoirs. What are the criteria for raising a suspicion of CBPP lesion? What is the procedure to notify (by whom and to whom)? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for CBPP agent, species, type of sample, testing method(s) and results (including differential diagnosis).
 - c) Provide details on training programmes for personnel involved in clinical and *slaughter* facilities *surveillance*, and the approaches used to increase community involvement in CBPP *surveillance* programmes.
 - d) For countries where a significant proportion of *animals* are not slaughtered in controlled *abattoirs*, what are the alternative *surveillance* measures applied to detect CBPP (e.g. active clinical *surveillance* programmes, laboratory follow-up).
 - e) Livestock demographics and economics. What is the susceptible animal population by species and production systems? How many *herds* of each susceptible species are in the country? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
 - f) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country? How are the *animals* transported and handled during these transactions?
 - g) Provide a description of the means employed during the two years preceding this application to rule out the presence of any *MmmSC* strain in the susceptible population. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.
6. CBPP prevention
- a) Coordination with neighbouring countries. Are there any relevant factors about the adjacent countries that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries.
 - b) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals*? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals*, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* for the past two years, specifying country or *zone* of origin, species and volume.

 - i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
 - ii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow-up of the following:
 - *animals*,
 - semen, embryos and oocytes,

- veterinary medicinal products, i.e. biologics.

iii) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of CBPP.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of a CBPP *outbreak*:
 - i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
 - ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with CBPP;
 - iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken;
 - iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
 - v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes and their prescribed timetable.

8. Compliance with the *Terrestrial Code*

In addition to the documentary evidence that the provisions of Article 11.8.3. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating:

- a) no clinical CBPP has been detected for at least two years;
- b) no CBPP vaccines have been used for at least two years in any susceptible species;
- c) the country operates both clinical *surveillance* and *disease* reporting systems for CBPP adequate to detect clinical *disease* if it were present;
- d) all clinical and pathological evidence suggestive of CBPP is investigated by field and laboratory methods (including serological assessment) to refute a possible diagnosis of CBPP;
- e) there are effective measures in force to prevent the re-introduction of the *disease*.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 11.8.4. of the *Terrestrial Code* and provide detailed information as specified in Sections 3.a), 3.b), 3.c), 5.b), 5.c) and 5.d) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

CONTAGIOUS BOVINE PLEUROPNEUMONIA FREE ZONE

Report of a Member which applies for recognition of status,
under Chapter 11.8 of the *Terrestrial Code* (2011),
as a bovine contagious pleuropneumonia infection free zone

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country including physical, geographical and other factors that are relevant to CBPP dissemination, countries sharing common borders and other countries that although may not be adjacent share a link for the potential introduction of *disease*. Provide a map identifying the factors above. The boundaries of the *zone* must be clearly defined. Provide a digitalised, geo-referenced map with a precise text description of the geographical boundaries of the *zone*.
- b) Livestock industry. Provide a general description of the livestock industry in the country.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to CBPP.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the *Veterinary Services* supervise and control all CBPP related activities. Provide maps and tables wherever possible.
- c) Role of farmers, industry and other relevant groups in CBPP *surveillance* and control (include a description of training and awareness programmes on CBPP).
- d) Role of private veterinary profession in CBPP *surveillance* and control.

3. CBPP eradication

- a) History. Provide a description of the CBPP history in the country, date of first detection, origin of *infection*, date of eradication (date of last *case*).
- b) Strategy. Describe how CBPP was controlled and eradicated in the *zone* (e.g. stamping-out, modified stamping-out, zoning) and provide time frame for eradication.
- c) Vaccines and vaccination. Was CBPP vaccine ever used? In the entire country? If vaccination was used, when was the last vaccination carried out? Where in the country?
- d) Legislation, organisation and implementation of the CBPP eradication campaign. Provide a description of the organizational structure at the different levels. Indicate if detailed operational guidelines exist and give a brief summary.
- e) Animal identification and movement control. Are susceptible *animals* identified (individually or at a group level)? Provide a description of the methods of *animal identification*, *herd* registration and traceability. How are animal movements controlled in the *zone*? Provide evidence on the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement.

4. CBPP diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.4.9. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is CBPP laboratory diagnosis carried out in the country? If so, provide a list of approved laboratories. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow-up procedures and the time frame for obtaining results.
- b) Provide an overview of the CBPP approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or planned for, the laboratory system.
 - ii) Give details of participation in inter-laboratory validation tests (ring tests).
 - iii) Biosecurity measures applied.
 - iv) Details of the type of tests undertaken including procedures to isolate and identify *M. mycoides* subsp. *mycoides* SC as opposed to *M. mycoides* subsp. *mycoides* LC.

5. CBPP surveillance

Provide documentary evidence that *surveillance* for CBPP in the country complies with the provisions of Articles 11.8.12. to 11.8.17. of the *Terrestrial Code* and Chapter 2.4.9. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Clinical surveillance. What are the criteria for raising a suspicion of CBPP? What is the procedure to notify (by whom and to whom) and what penalties are involved for failure to report? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for CBPP agent, species, type of sample, testing method(s) and results (including differential diagnosis).
- b) Slaughterhouses, slaughter slabs, abattoirs. What are the criteria for raising a suspicion of CBPP lesion? What is the procedure to notify (by whom and to whom)? Provide a summary table indicating, for the past two years, the number of suspect *cases*, the number of samples tested for CBPP agent, species, type of sample, testing method(s) and results (including differential diagnosis).
- c) Provide details on training programmes for personnel involved in clinical and *slaughter* facilities *surveillance*, and the approaches used to increase community involvement in CBPP *surveillance* programmes.
- d) For countries where a significant proportion of *animals* in the *zone* are not slaughtered in controlled *abattoirs*, what are the alternative *surveillance* measures applied to detect CBPP (e.g. active clinical *surveillance* programme, laboratory follow-up).
- e) Livestock demographics and economics. What is the susceptible animal population by species and production systems? How many *herds* of each susceptible species are in the *zone*? How are they distributed (e.g. *herd* density, etc.)? Provide tables and maps as appropriate.
- f) Slaughterhouses and markets. Where are the major livestock marketing or collection centers? What are the patterns of livestock movement within the country and the *zone*? How are the *animals* transported and handled during these transactions?
- g) Provide a description of the means employed during the two years preceding this application to rule out the presence of any *Mmm*SC strain in the susceptible population of the *zone*. Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators.

6. CBPP prevention

- a) Coordination with neighbouring countries and *zones*. Are there any relevant factors about the adjacent countries and *zones* that should be taken into account (e.g. size, distance from adjacent border to affected *herds* or *animals*)? Describe coordination, collaboration and information sharing activities with neighbouring countries and *zones*. If the CBPP free *zone* is situated in a CBPP infected country or borders an infected country or *zone*, describe the animal health measures implemented to effectively prevent the introduction of the agent, taking into consideration physical or geographical barriers.

b) Import control procedures

From what countries or *zones* does the country authorize the import of susceptible *animals*? What criteria are applied to approve such countries or *zones*? What controls are applied on entry of such *animals*, and subsequent internal movement? What import conditions and test procedures are required? Are imported *animals* of susceptible species required to undergo a quarantine or isolation period? If so, for how long and where? Are import permits and health certificates required? What other procedures are used? Provide summary statistics of imports of susceptible *animals* for the past two years, specifying country or *zone* of origin, species and volume.

- i) Provide a map with the number and location of ports, airports and land crossings. Is the official service responsible for import controls part of the official services, or is it an independent body? If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
- ii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the *zone* and/or their final destination, concerning the import and follow-up of the following:
- *animals*,
 - semen, embryos and oocytes,
 - veterinary medicinal products, i.e. biologics.
- iii) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports.

7. Control measures and contingency planning

- a) Give details of any written guidelines, including contingency plans, available to the official services for dealing with suspected or confirmed *outbreaks* of CBPP.
- b) Is quarantine imposed on premises with suspicious *cases*, pending final diagnosis? What other procedures are followed regarding suspicious *cases*?
- c) In the event of a CBPP *outbreak*:
- i) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
 - ii) describe the actions taken to control the disease situation in and around any holdings found to be infected with CBPP;
 - iii) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, etc.) that would be taken;
 - iv) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
 - v) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control/eradication purposes.

8. Compliance with the *Terrestrial Code*

In addition to the documentary evidence that the provisions of Article 11.8.3. are properly implemented and supervised, the Delegate of the country must submit a declaration indicating that in the *zone*:

- a) no clinical CBPP has been detected for at least two years;
- b) no CBPP vaccines have been used for at least two years in any susceptible species;
- c) the country operates both clinical *surveillance* and *disease* reporting systems for CBPP adequate to detect clinical *disease* if it were present in the *zone*;
- d) all clinical and pathological suggestive of CBPP is investigated by field and laboratory methods (including serological assessment) to refute a possible diagnosis of CBPP;
- e) there are effective measures in force to prevent the re-introduction of the *disease*.

9. Recovery of status

Countries applying for recovery of status should comply with the provisions of Article 11.8.4. of the *Terrestrial Code* and provide detailed information as specified in Sections 3.a), 3.b), 3.c), 5.b), 5.c) and 5.d) of this questionnaire. Information in relation to other sections need only be supplied if relevant.

Article 1.6.7.

Questionnaire on foot and mouth disease

COUNTRY WITH AN OIE ENDORSED OFFICIAL CONTROL PROGRAMME FOR FMD

Report of a Member which applies for endorsement of status,
under Chapter 8.5 of the *Terrestrial Code* (2011),
as a Member with an endorsed official control programme for FMD

Please address concisely the following topics. National regulations and laws and Veterinary Administration directives may be referred to and annexed as appropriate in one of the OIE official languages.

1. Introduction

- a) Geographical factors. Provide a general description of the country and any *zones*, including physical, geographical and other factors that are relevant to FMD dissemination, countries or *zones* sharing common borders and other countries or *zones* that, although not adjacent, present a risk for the introduction of *disease*.
- b) If the endorsed plan is gradually implemented to specific parts of the country, the boundaries of the *zone(s)* should be clearly defined, including the *protection zone*, if applied. Provide a digitalised, geo-referenced map with a precise text description of the geographical boundaries of the *zone(s)*.
- c) Provide a general description of the livestock industry in the country and any *zones*.

2. Veterinary system

- a) Legislation. Provide a list and summary of all relevant veterinary legislation in relation to the FMD control programme.
- b) Veterinary Services. Provide documentation on the compliance of the *Veterinary Service* of the country with the provisions of Chapters 3.1. and 3.2. of the *Terrestrial Code* and 1.1.3. of the *Terrestrial Manual* and describe how the veterinary services supervise and control all FMD related activities in the country and any *zones*. Provide maps and tables wherever possible.

- c) Provide a description on the involvement and the participation of industry, producers, farmers, including subsistence and small scale producers, community animal health workers and the role of the private veterinary profession in FMD *surveillance* and control. Include a description of training and awareness programmes on FMD.
- d) Provide information on any OIE PVS evaluation of the country and follow-up steps within the PVS Pathway.

3. FMD control

- a) Provide a description of the FMD history in the country and any *zones*, including date of first detection, origin of *infection*, date of implementation of the control programme in the country and any *zones*, and types and subtypes of the FMD virus present.
- b) Describe the general epidemiology of FMD in the country and the surrounding countries or *zones* highlighting the current knowledge and gaps.
- c) Describe how FMD is controlled in the country or any *zones*. Submit a detailed plan on the measures to control and eventually eradicate FMD in the country. Include the timelines of the control programme and the performance indicators to assess the efficacy of the control measures and plan.
- d) Provide a description of the legislation, organisation and implementation of the FMD control programme. Indicate if detailed operational guidelines exist and give a brief summary. Describe the funding for the control programme and annual budgets for the duration of the control programme.
- e) Provide information on what types of vaccines are used and which species are vaccinated. Provide information on the licensing process of the vaccines used. Describe the vaccination programme in the country and in any *zones*, including records kept, and provide evidence to show its effectiveness (e.g. vaccination coverage, population immunity, etc.). Provide details on the studies carried out to determine the population immunity, including the study design. Provide details, if applicable, on a proposed timeline for the transition to the use of vaccines fully compliant with the standards and methods described in the *Terrestrial Manual* to enable demonstration of absence of virus circulation.
- f) Provide a description of the methods of *animal identification* (at the individual or group level), *herd* registration and traceability; and how the movements of *animals* and products are assessed and controlled, including movement of infected *animals* to *slaughter*. Describe the effectiveness of *animal identification* and movement controls. Please provide information on pastoralism, transhumance and related paths of movement. Describe measures to prevent introduction of the virus from neighbouring countries or *zones* and through trade.

4. FMD surveillance

Provide documentary evidence on whether *surveillance* for FMD in the country complies with the provisions of Articles 8.5.42. to 8.5.47. and Article 8.5.49. of the *Terrestrial Code* and Chapter 2.1.5. of the *Terrestrial Manual*. In particular, the following points should be addressed:

- a) Describe the criteria for raising a suspicion of FMD and the procedure to notify (by whom and to whom) and what penalties are involved for failure to report.

- b) Describe how clinical *surveillance* is conducted, including which levels of the livestock production system are included in clinical *surveillance* (e.g. farms, markets, fairs, *slaughterhouse*, check points, etc.). Provide criteria for selection of populations for targeted *surveillance* and numbers of *animals* examined and samples tested in diagnostic laboratories. Provide details on the methods applied for monitoring the performance of the *surveillance* system including indicators. Explain whether serological and virological surveys are conducted and, if so, how frequently and for what purpose.
- c) Provide a summary table indicating, for at least the past two years, the number of samples tested for FMD and FMDV, species, type of sample, testing method(s) and results (including differential diagnosis). Provide procedural details on follow-up actions taken on suspicious and positive results.
- d) Provide information on livestock demographics and economics, including the susceptible animal population by species and production systems in the country and the *zone*. Identify how many *herds*, *flocks*, etc. of each susceptible species are in the country and how they are distributed (e.g. *herd* density, etc.). Provide tables and maps as appropriate.
- e) Provide information on the demographics and migration patterns of FMD susceptible *wildlife* species, including which susceptible species are present in the country and any *zones*. Provide estimates of population sizes and geographic distribution. Identify whether susceptible *wildlife* are included in *surveillance*. Identify the measures in place to prevent contact between domestic and susceptible *wildlife*.
- f) Identify the livestock slaughter, marketing and collection centres. Provide information on the patterns of livestock movement within the country, including how *animals* are transported and handled during these transactions.

5. FMD laboratory diagnosis

Provide documentary evidence that the provisions in Chapters 1.1.2., 1.1.3. and 2.1.5. of the *Terrestrial Manual* are applied. In particular, the following points should be addressed:

- a) Is FMD laboratory diagnosis carried out in the country? If so, provide a list of laboratories approved by the competent authority to diagnose FMD. If not, provide the name(s) of and the arrangements with the laboratory(ies) samples are sent to, the follow-up procedures and the time frame for obtaining results. If applicable, indicate the laboratory(ies) where samples originating from any *zone* are diagnosed. Is there regular submission of samples from the country or *zone* to a laboratory that carries out diagnosis and further characterisation of strains in accordance with the standards and methods described in the *Terrestrial Manual*?
- b) Provide an overview of the FMD approved laboratories, in particular to address the following points:
 - i) Procedures for the official accreditation of laboratories. Give details of internal quality management systems, e.g. Good Laboratory Practice, ISO, etc. that exist in, or are planned for, the laboratory system.
 - ii) Give details on participation in inter-laboratory validation tests (ring tests).
 - iii) Is live virus handled?
 - iv) Biosecurity measures applied.
 - v) Details of the type of tests undertaken.

6. FMD prevention

Describe the procedures in place to prevent the introduction of FMD into the country. In particular provide details on:

- a) Coordination with neighbouring countries, trading partners and other countries within the same region. Identify relevant factors about the adjacent countries and *zones* that should be taken into account (e.g. size, distance from adjacent borders to affected *herds* or *animals*, *surveillance* carried in adjacent countries). Describe coordination, collaboration and information sharing activities with neighbouring countries and *zones*. Describe the measures implemented to effectively prevent the introduction of the agent, taking into consideration physical or geographical barriers. Describe the measures implemented to prevent the propagation of the agent within the country or *zone* and through trade.
- b) Are there controls in place for the feeding of swill containing animal products to pigs? If so provide information on the extent of the practice, and describe controls and *surveillance* measures.
- c) Provide information on countries or *zones* from which the country authorises the import of susceptible *animals* or their products into the country or *zone*. Describe the criteria applied to approve such countries or *zones*, the controls applied on entry of such *animals* and products, and subsequent internal movement. Describe the import conditions and test procedures required. Advise whether imported *animals* of susceptible species are required to undergo a quarantine or isolation period, and if so, the duration and location of quarantine. Advise whether import permits and health certificates are required. Describe any other procedures used. Provide summary statistics on imports of susceptible *animals* and their products for at least the past two years, specifying country or *zone* of origin, the species and the number or volume.
 - i) Provide a map with the number and location of ports, airports and land crossings. Advise whether the service responsible for import controls is part of the official services, or if it is an independent body. If it is an independent body, describe its management structure, staffing levels and resources, and its accountability to the central *Veterinary Services*. Describe the communication systems between the central authorities and the border inspection posts, and between border inspection posts.
 - ii) Provide a description on the methods used for the safe disposal of waste food from international traffic, who is responsible to supervise this and provide a summary, for the past two years, of the quantity disposed of.
 - iii) Describe the regulations, procedures, type and frequency of checks at the point of entry into the country and/or their final destination, concerning the import and follow up of the following:
 - *animals*,
 - genetic material (semen and embryos),
 - animal products,
 - veterinary medicinal products, i.e. biologics,
 - other livestock related goods potentially contaminated with FMDV including bedding, litter and feeds.
 - iv) Describe the action available under legislation, and actually taken, when an illegal import is detected. Provide information on detected illegal imports, if available.

7. Control measures and emergency response

- a) Give details of any written guidelines, including emergency response plans, available to the official services for dealing with suspected or confirmed *outbreaks* of FMD.
- b) Advise whether quarantine is imposed on premises with suspicious *cases*, pending final diagnosis and any other procedures followed in respect of suspicious *cases*.
- c) In the event of a FMD *outbreak*:
 - i) provide a detailed description of procedures that are followed in case of an *outbreak* including forward and backward tracing;

- ii) indicate the sampling and testing procedures used to identify and confirm presence of the causative agent;
- iii) describe the actions taken to control the disease situation in and around any holdings found to be infected with FMD;
- iv) indicate the control and/or eradication procedures (e.g. vaccination, stamping-out, partial *slaughter*/vaccination, movement control, control of *wildlife*, pastured livestock and livestock as pets, control of the livestock waste, campaign to promote awareness of farmers, etc.) that would be taken;
- v) describe the procedures used to confirm that an *outbreak* has been successfully controlled/eradicated, including any restrictions on restocking;
- vi) give details of any compensation payments made available to farmers, etc. when *animals* are slaughtered for *disease* control or eradication purposes and their prescribed timetable.

8. Recovery of status

Countries applying for recovery of the official endorsement of the national FMD control programme should provide updated information in compliance with the provisions of Article 8.5.48. of the *Terrestrial Code*.

1 Accounts of the ages for eruption of the incisor teeth vary markedly and are clearly dependent on species, breed, nutritional status and nature of the feed. Therefore, for the purposes of serosurveillance, it should be noted that a) cattle having only one pair of erupted permanent central incisor teeth are aged between 21 and 36 months (Asian buffalos 24-48 months) and b) cattle having only two pairs of erupted permanent central incisor teeth are aged between 30 and 48 months (Asian buffalos 48-60 months).

SECTION 2.

RISK ANALYSIS

CHAPTER 2.1.

IMPORT RISK ANALYSIS

Article 2.1.1.

Introduction

The importation of *animals* and animal products involves a degree of *disease risk* to the *importing country*. This *risk* may be represented by one or several *diseases* or *infections*.

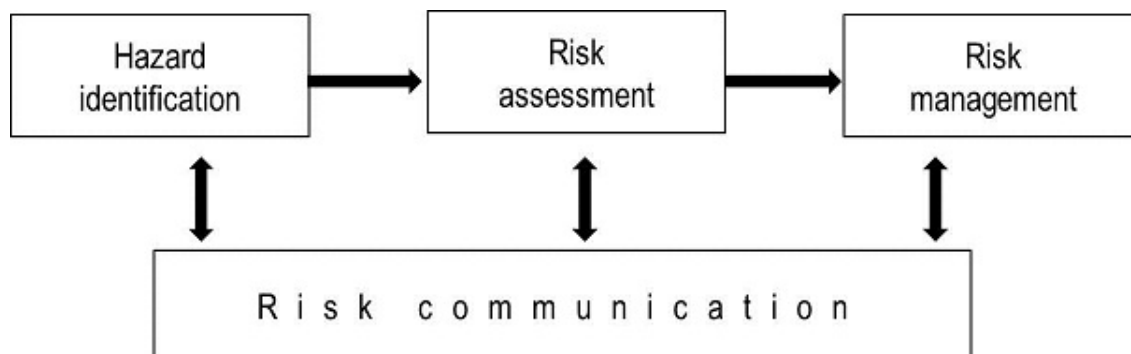
The principal aim of import *risk analysis* is to provide *importing countries* with an objective and defensible method of assessing the *disease risks* associated with the importation of *animals*, animal products, animal genetic material, feedstuffs, biological products and *pathological material*. The analysis should be transparent. This is necessary so that the *exporting country* is provided with clear reasons for the imposition of import conditions or refusal to import.

Transparency is also essential because data are often uncertain or incomplete and, without full documentation, the distinction between facts and the analyst's value judgements may blur.

This chapter alludes to the role of the OIE with respect to the Agreement on the Application of Sanitary and Phytosanitary Measures (the so-called SPS Agreement) of the World Trade Organization (WTO), provides definitions and describes the OIE informal procedure for dispute mediation.

This chapter provides recommendations and principles for conducting transparent, objective and defensible *risk analyses* for *international trade*. The components of *risk analysis* described in that chapter are *hazard identification*, *risk assessment*, *risk management* and *risk communication* (Figure 1).

Fig. 1. The four components of risk analysis



The *risk assessment* is the component of the analysis which estimates the *risks* associated with a *hazard*. *Risk assessments* may be qualitative or quantitative. For many *diseases*, particularly for those *diseases* listed in this *Terrestrial Code* where there are well developed internationally agreed standards, there is broad agreement concerning the likely *risks*. In such cases it is more likely that a qualitative assessment is all that is required.

Qualitative assessment does not require mathematical modelling skills to carry out and so is often the type of assessment used for routine decision making. No single method of import *risk assessment* has proven applicable in all situations, and different methods may be appropriate in different circumstances.

The process of import *risk analysis* usually needs to take into consideration the results of an evaluation of *Veterinary Services*, zoning, compartmentalisation and *surveillance* systems in place for monitoring of animal health in the *exporting country*. These are described in separate chapters in the *Terrestrial Code*.

Article 2.1.2.

Hazard identification

The *hazard identification* involves identifying the pathogenic agents which could potentially produce adverse consequences associated with the importation of a *commodity*.

The potential *hazards* identified would be those appropriate to the species being imported, or from which the *commodity* is derived, and which may be present in the *exporting country*. It is then necessary to identify whether each potential *hazard* is already present in the *importing country*, and whether it is a *notifiable disease* or is subject to control or eradication in that country and to ensure that import measures are not more trade restrictive than those applied within the country.

Hazard identification is a categorisation step, identifying biological agents dichotomously as potential *hazards* or not. The *risk assessment* may be concluded if *hazard identification* fails to identify potential *hazards* associated with the importation.

The evaluation of the *Veterinary Services*, *surveillance* and control programmes and zoning and compartmentalisation systems are important inputs for assessing the likelihood of *hazards* being present in the animal population of the *exporting country*.

An *importing country* may decide to permit the importation using the appropriate sanitary standards recommended in the *Terrestrial Code*, thus eliminating the need for a *risk assessment*.

Article 2.1.3.

Principles of risk assessment

1. *Risk assessment* should be flexible to deal with the complexity of real life situations. No single method is applicable in all cases. *Risk assessment* should be able to accommodate the variety of animal *commodities*, the multiple *hazards* that may be identified with an importation and the specificity of each *disease*, detection and *surveillance* systems, exposure scenarios and types and amounts of data and information.
2. Both *qualitative risk assessment* and *quantitative risk assessment* methods are valid.
3. The *risk assessment* should be based on the best available information that is in accord with current scientific thinking. The assessment should be well-documented and supported with references to the scientific literature and other sources, including expert opinion.
4. Consistency in *risk assessment* methods should be encouraged and *transparency* is essential in order to ensure fairness and rationality, consistency in decision making and ease of understanding by all the interested parties.
5. *Risk assessments* should document the uncertainties, the assumptions made, and the effect of these on the final risk estimate.
6. *Risk* increases with increasing volume of *commodity* imported.
7. The *risk assessment* should be amenable to updating when additional information becomes available.

Article 2.1.4.

Risk assessment steps1. Release assessment

Release assessment consists of describing the biological pathway(s) necessary for an importation activity to 'release' (that is, introduce) pathogenic agents into a particular environment, and estimating the probability of that complete process occurring, either qualitatively (in words) or quantitatively (as a numerical estimate). The release assessment describes the probability of the 'release' of each of the potential *hazards* (the pathogenic agents) under each specified set of conditions with respect to amounts and timing, and how these might change as a result of various actions, events or measures. Examples of the kind of inputs that may be required in the release assessment are:

- a) Biological factors
 - species, age and breed of *animals*
 - agent predilection sites
 - vaccination, testing, treatment and quarantine.
- b) Country factors
 - incidence/prevalence
 - evaluation of *Veterinary Services, surveillance* and control programmes and zoning and compartmentalisation systems of the *exporting country*.
- c) Commodity factors
 - quantity of *commodity* to be imported
 - ease of contamination
 - effect of processing
 - effect of storage and transport.

If the release assessment demonstrates no significant *risk*, the *risk assessment* does not need to continue.

2. Exposure assessment

Exposure assessment consists of describing the biological pathway(s) necessary for exposure of *animals* and humans in the *importing country* to the *hazards* (in this case the pathogenic agents) released from a given *risk* source, and estimating the probability of the exposure(s) occurring, either qualitatively (in words) or quantitatively (as a numerical estimate).

The probability of exposure to the identified *hazards* is estimated for specified exposure conditions with respect to amounts, timing, frequency, duration of exposure, routes of exposure (e.g. ingestion, inhalation, or insect bite), and the number, species and other characteristics of the animal and human populations exposed. Examples of the kind of inputs that may be required in the exposure assessment are:

- a) Biological factors
 - properties of the agent.
- b) Country factors
 - presence of potential vectors
 - human and animal demographics
 - customs and cultural practices
 - geographical and environmental characteristics.

- c) Commodity factors
 - quantity of *commodity* to be imported
 - intended use of the imported *animals* or products
 - disposal practices.

If the exposure assessment demonstrates no significant *risk*, the *risk assessment* may conclude at this step.

3. Consequence assessment

Consequence assessment consists of describing the relationship between specified exposures to a biological agent and the consequences of those exposures. A causal process should exist by which exposures produce adverse health or environmental consequences, which may in turn lead to socio-economic consequences. The consequence assessment describes the potential consequences of a given exposure and estimates the probability of them occurring. This estimate may be either qualitative (in words) or quantitative (a numerical estimate). Examples of consequences include:

- a) Direct consequences
 - animal *infection, disease* and production losses
 - public health consequences.
- b) Indirect consequences
 - *surveillance* and control costs
 - compensation costs
 - potential trade losses
 - adverse consequences to the environment.

4. Risk estimation

Risk estimation consists of integrating the results from the release assessment, exposure assessment, and consequence assessment to produce overall measures of *risks* associated with the *hazards* identified at the outset. Thus risk estimation takes into account the whole of the *risk* pathway from *hazard* identified to unwanted outcome.

For a quantitative assessment, the final outputs may include:

- estimated numbers of *herds, flocks, animals* or people likely to experience health impacts of various degrees of severity over time;
- probability distributions, confidence intervals, and other means for expressing the uncertainties in these estimates;
- portrayal of the variance of all model inputs;
- a sensitivity analysis to rank the inputs as to their contribution to the variance of the *risk* estimation output;
- analysis of the dependence and correlation between model inputs.

Article 2.1.5.

Principles of risk management

1. *Risk management* is the process of deciding upon and implementing measures to achieve the Member's appropriate level of protection, whilst at the same time ensuring that negative effects on trade are minimized. The objective is to manage *risk* appropriately to ensure that a balance is achieved between a country's desire to minimize the likelihood or frequency of *disease* incursions and their

consequences and its desire to import *commodities* and fulfil its obligations under *international trade agreements*.

2. The international standards of the OIE are the preferred choice of *sanitary measures* for *risk management*. The application of these *sanitary measures* should be in accordance with the intentions in the standards.

Article 2.1.6.

Risk management components

1. Risk evaluation - the process of comparing the *risk* estimated in the *risk assessment* with the Member's appropriate level of protection.
2. Option evaluation - the process of identifying, evaluating the efficacy and feasibility of, and selecting measures to reduce the *risk* associated with an importation in order to bring it into line with the Members appropriate level of protection. The efficacy is the degree to which an option reduces the likelihood and/or magnitude of adverse health and economic consequences. Evaluating the efficacy of the options selected is an iterative process that involves their incorporation into the *risk assessment* and then comparing the resulting level of *risk* with that considered acceptable. The evaluation for feasibility normally focuses on technical, operational and economic factors affecting the implementation of the *risk management* options.
3. Implementation - the process of following through with the *risk management* decision and ensuring that the *risk management* measures are in place.
4. Monitoring and review - the ongoing process by which the *risk management* measures are continuously audited to ensure that they are achieving the results intended.

Article 2.1.7.

Principles of risk communication

1. *Risk communication* is the process by which information and opinions regarding *hazards* and *risks* are gathered from potentially affected and interested parties during a *risk analysis*, and by which the results of the *risk assessment* and proposed *risk management* measures are communicated to the decision-makers and interested parties in the *importing* and *exporting countries*. It is a multidimensional and iterative process and should ideally begin at the start of the *risk analysis* process and continue throughout.
2. A *risk communication* strategy should be put in place at the start of each *risk analysis*.
3. The *communication of the risk* should be an open, interactive, iterative and transparent exchange of information that may continue after the decision on importation.
4. The principal participants in *risk communication* include the authorities in the *exporting country* and other stakeholders such as domestic and foreign industry groups, domestic livestock producers and consumer groups.
5. The assumptions and uncertainty in the model, model inputs and the risk estimates of the *risk assessment* should be communicated.
6. Peer review is a component of *risk communication* in order to obtain scientific critique and to ensure that the data, information, methods and assumptions are the best available.

SECTION 3.

QUALITY OF VETERINARY SERVICES

CHAPTER 3.1.

VETERINARY SERVICES

Article 3.1.1.

The quality of the *Veterinary Services* depends on a set of factors, which include fundamental principles of an ethical, organisational, legislative, regulatory and technical nature. The *Veterinary Services* shall conform to these fundamental principles, regardless of the political, economic or social situation of their country.

Compliance with these fundamental principles by the *Veterinary Services* of a Member is important to the establishment and maintenance of confidence in its *international veterinary certificates* by the *Veterinary Services* of other Members.

The same fundamental principles should apply in countries where the responsibility for establishing or applying certain animal health or *welfare* measures, or issuing some *international veterinary certificates* is exercised by an organisation other than the *Veterinary Services*, or by an authority or agency on behalf of the *Veterinary Services*. In all cases, the *Veterinary Services* retain ultimate responsibility for the application of these principles.

These fundamental principles are presented in Article 3.1.2. Other factors affecting quality are described in Volume I of the *Terrestrial Code* (notification, principles of certification, etc.).

The quality of *Veterinary Services*, including *veterinary legislation*, can be measured through an evaluation, whose general principles are described in Article 3.1.3. and in Article 3.1.4.

Recommendations on the evaluation of *Veterinary Services*, including *veterinary legislation*, are described in Chapter 3.2.

A procedure for evaluating *Veterinary Services* by OIE experts, on a voluntary basis, is described in Article 3.1.5.

Article 3.1.2.

Fundamental principles of quality

The *Veterinary Services* shall comply with the following principles to ensure the quality of their activities:

1. Professional judgement

The personnel of *Veterinary Services* should have the relevant qualifications, scientific expertise and experience to give them the competence to make sound professional judgements.

2. Independence

Care should be taken to ensure that *Veterinary Services'* personnel are free from any commercial, financial, hierarchical, political or other pressures which might affect their judgement or decisions.

3. Impartiality

The *Veterinary Services* should be impartial. In particular, all the parties affected by their activities have a right to expect their services to be delivered under reasonable and non-discriminatory conditions.

4. Integrity

The *Veterinary Services* should guarantee that the work of each of their personnel is of a consistently high level of integrity. Any fraud, corruption or falsification should be identified and corrected.

5. Objectivity

The *Veterinary Services* should at all times act in an objective, transparent and non-discriminatory manner.

6. Veterinary legislation

Veterinary legislation is prerequisite to support good governance and provide the legal framework for all key activities of the *Veterinary Services*.

Legislation should be suitably flexible to allow for judgements of equivalence and efficient responses to changing situations. In particular, it should define and document the responsibilities and structure of the organisations in charge of the *animal identification system*, control of animal movements, animal disease control and reporting systems, epidemiological *surveillance* and communication of epidemiological information.

A similar demonstration should be made by *Veterinary Services* when they are in charge of veterinary public health activities.

7. General organisation

The *Veterinary Services* should be able to demonstrate by means of appropriate legislation, sufficient financial resources and effective organisation that they are in a position to have control of the establishment and application of animal health and *animal welfare* measures, and of international veterinary certification activities.

The *Veterinary Services* should have at their disposal effective systems for animal disease *surveillance* and for *notification* of disease problems wherever they occur, in accordance with the provisions of the *Terrestrial Code*. Adequate coverage of animal populations should also be demonstrated. They should at all times endeavour to improve their performance in terms of animal health information systems and animal disease control.

The *Veterinary Services* should define and document the responsibilities and structure of the organisation (in particular the chain of command) in charge of issuing *international veterinary certificates*.

Each position within the *Veterinary Services* which has an impact on their quality should be described. These job descriptions should include the requirements for education, training, technical knowledge and experience.

8. Quality policy

The *Veterinary Services* should define and document their policy and objectives for, and commitment to, quality, and should ensure that this policy is understood, implemented and maintained at all levels in the organisation. Where conditions allow, they may implement a quality system corresponding to their areas of activity and appropriate for the type, range and volume of work that they have to perform. The recommendations for the quality and evaluation of *Veterinary Services* propose a suitable reference system, which should be used if a Member choose to adopt a quality system.

9. Procedures and standards

The *Veterinary Services* should develop and document appropriate procedures and standards for all providers of relevant activities and associated facilities. These procedures and standards may for example relate to:

- a) programming and management of activities, including international veterinary certification activities;

- b) prevention, control and notification of *disease outbreaks*;
- c) *risk analysis*, epidemiological *surveillance* and zoning;
- d) inspection and sampling techniques;
- e) diagnostic tests for animal *diseases*;
- f) preparation, production, registration and control of biological products for use in the diagnosis or prevention of *diseases*;
- g) border controls and import regulations;
- h) *disinfection* and *disinfestation*;
- i) treatments intended to destroy, if appropriate, pathogens in animal products.

Inasmuch as the OIE has adopted standards on these matters, the *Veterinary Services* should comply with these standards when applying animal health measures and when issuing *international veterinary certificates*.

10. Information, complaints and appeals

The *Veterinary Authority* should undertake to reply to legitimate requests from *Veterinary Authorities* of other Members or any other authority, in particular ensuring that any requests for information, complaints or appeals that they may present are dealt with in a timely manner.

A record should be maintained of all complaints and appeals and of the relevant action taken by the *Veterinary Services*.

11. Documentation

The *Veterinary Services* should have at their disposal a reliable and up-to-date documentation system suited to their activities.

12. Self-evaluation

The *Veterinary Services* should undertake periodical self-evaluation especially by documenting achievements against goals, and demonstrating the efficiency of their organisational components and resource adequacy.

A procedure for evaluating *Veterinary Services* by OIE experts, on a voluntary basis, is described in Article 3.1.5.

13. Communication

Veterinary Services should have effective internal and external systems of communication covering administrative and technical staff and parties affected by their activities.

14. Human and financial resources

Responsible authorities should ensure that adequate resources are made available to implement effectively the above activities.

Article 3.1.3.

For the purposes of the *Terrestrial Code*, every Member should recognise the right of another Member to undertake, or request it to undertake, an evaluation of its *Veterinary Services* where the initiating Member is an actual or a prospective importer or exporter of *commodities* and where the evaluation is to be a component of a *risk analysis* process which is to be used to determine or review sanitary measures which apply to such trade.

Any evaluation of *Veterinary Services* should be conducted having regard to the OIE recommendations on the evaluation of *Veterinary Services* presented in Chapter 3.2.

A Member has the right to expect that the evaluation of its *Veterinary Services* will be conducted in an objective manner. A Member undertaking evaluation should be able to justify any measure taken as a consequence of its evaluation.

Article 3.1.4.

A Member which intends to conduct an evaluation of another Member's *Veterinary Services* should give them notice in writing. This notice should define the purpose of the evaluation and details of the information required.

On receipt of a formal request for information to enable an evaluation of its *Veterinary Services* by another Member, and following bilateral agreement of the evaluation process and criteria, a Member should expeditiously provide the other country with meaningful and accurate information of the type requested.

The evaluation process should take into account the fundamental principles and other factors of quality laid down in Article 3.1.1. and in Article 3.1.2. It should also take into consideration the specific circumstances regarding quality, as described in Article 3.1.1., prevailing in the countries concerned.

The outcome of the evaluation conducted by a Member should be provided in writing as soon as possible, and in any case within 4 months of receipt of the relevant information, to the Member which has undergone the evaluation. The evaluation report should detail any findings which affect trade prospects. The Member which conducts the evaluation should clarify in detail any points of the evaluation on request.

In the event of a dispute between two Members over the conduct or the conclusions of the evaluation of the *Veterinary Services*, the matter should be dealt with having regard to the procedures set out in Article 5.3.8.

Article 3.1.5.

Evaluation facilitated by OIE experts under the auspices of the OIE

The OIE has established procedures for the evaluation of the *Veterinary Services* of a Member, upon request by the Member.

The World Assembly of OIE Delegates endorses a list of approved experts to facilitate the evaluation process.

Under these procedures, the Director General of the OIE recommends an expert(s) from that list.

The expert(s) facilitate(s) the evaluation of the *Veterinary Services* of the Member based on the provisions in Chapter 3.2., using the OIE *Tool for the Evaluation of Performance of Veterinary Services* (OIE PVS Tool).

The expert(s) produce(s) a report in consultation with the *Veterinary Services* of the Member.

The report is submitted to the Director General of the OIE and, with the consent of the Member, published by the OIE.

CHAPTER 3.2.

EVALUATION OF VETERINARY SERVICES

Article 3.2.1.

General considerations

1. Evaluation of *Veterinary Services* is an important element in the *risk analysis* process which countries may legitimately use in their policy formulations directly applying to animal health and sanitary controls of *international trade in animals*, animal-derived products, animal genetic material and animal feedstuffs.

Any evaluation should be carried out with due regard for Chapter 3.1.

2. In order to ensure that objectivity is maximised in the evaluation process, it is essential for some standards of discipline to be applied. The OIE has developed these recommendations which can be practically applied to the evaluation of *Veterinary Services*. These are relevant for evaluation of the *Veterinary Services* of one country by those of another country for the purposes of *risk analysis* in *international trade*. The recommendations are also applicable for evaluation by a country of its own *Veterinary Services* – the process known as self-evaluation – and for periodic re-evaluation. These recommendations should be used by OIE experts when facilitating an evaluation under the auspices of the OIE, following a request of a Member. In applying these recommendations on the evaluation, the OIE *Tool for the Evaluation of Performance of Veterinary Services* (OIE *PVS Tool*) should be used.

In carrying out a *risk analysis* prior to deciding the sanitary/zoosanitary conditions for the importation of a *commodity*, an *importing country* is justified in regarding its evaluation of the *Veterinary Services* of the *exporting country* as critical.

3. The purpose of evaluation may be either to assist a national authority in the decision-making process regarding priorities to be given to its own *Veterinary Services* (self-evaluation) or to assist the process of *risk analysis* in *international trade in animals* and animal-derived products to which official sanitary and/or zoosanitary controls apply.
4. In both situations, the evaluation should demonstrate that the *Veterinary Services* have the capability for effective control of the sanitary and zoosanitary status of *animals* and animal products. Key elements to be covered in this process include adequacy of resources, management capability, legislative and administrative infrastructures, independence in the exercise of official functions and history of performance, including *disease* reporting.
5. Good governance is the key to competence, integrity and confidence in organisations. Mutual confidence between relevant official *Veterinary Services* of trading partner countries contributes fundamentally to stability in *international trade in animals* and animal-related products. In this situation, scrutiny is directed more at the *exporting country* than at the *importing country*.
6. Although quantitative data can be provided on *Veterinary Services*, the ultimate evaluation will be essentially qualitative. While it is appropriate to evaluate resources and infrastructure (organisational, administrative and legislative), it is also appropriate to place emphasis on the evaluation of the quality of outputs and performance of *Veterinary Services*. Evaluation should take into consideration any quality systems used by *Veterinary Services*.
7. An *importing country* has a right of assurance that information on sanitary/zoosanitary situations provided by the *Veterinary Services* of an *exporting country* is objective, meaningful and correct. Furthermore, the *Veterinary Services* of the *importing country* are entitled to expect validity in the veterinary certification of export.

8. An *exporting country* is entitled to expect that its *animals* and animal products will receive reasonable and valid treatment when they are subjected to import inspection in the country of destination. The country should also be able to expect that any evaluation of its standards and performance will be conducted on a non-discriminatory basis. The *importing country* should be prepared and able to defend any position which it takes as a consequence of the evaluation.
9. As the *veterinary statutory body* is not a part of the *Veterinary Services*, an evaluation of that body should be carried out to ensure that the registration/licensing of *veterinarians* and authorisation of *veterinary para-professionals* is included.

Article 3.2.2.

Scope

1. In the evaluation of *Veterinary Services*, the following items may be considered, depending on the purpose of the evaluation:
 - organisation, structure and authority of the *Veterinary Services*;
 - human resources;
 - material (including financial) resources;
 - *veterinary legislation*, regulatory frameworks and functional capabilities;
 - animal health, *animal welfare* and veterinary public health controls;
 - formal quality systems including quality policy;
 - performance assessment and audit programmes;
 - participation in OIE activities and compliance with OIE Members' obligations.
2. To complement the evaluation of *Veterinary Services*, the legislative and regulatory framework, the organisational structure and functioning of the *veterinary statutory body* should also be considered.
3. Article 3.2.14. outlines appropriate information requirements for:
 - self-evaluation by the *Veterinary Authority* which perceives a need to prepare information for national or international purposes;
 - evaluation by a prospective or actual *importing country* of the *Veterinary Services* of a prospective or actual *exporting country*;
 - verification or re-verification of an evaluation in the course of a visit to the *exporting country* by the *importing country*;
 - evaluation by third parties such as OIE PVS experts or regional organisations.

Article 3.2.3.

Evaluation criteria for the organisational structure of the Veterinary Services

1. A key element in the evaluation is the study of the organisation and structure of the official *Veterinary Services*. The *Veterinary Services* should define and set out their policy, objectives and commitment to quality systems and standards. These organisational and policy statements should be described in detail. Organisational charts and details of functional responsibilities of staff should be available for evaluation. The role and responsibility of the Chief Veterinary Officer/Veterinary Director should be clearly defined. Lines of command should also be described.
2. The organisational structure should also clearly set out the interface relationships of government Ministers and departmental Authorities with the Chief Veterinary Officer/Veterinary Director and

the *Veterinary Services*. Formal relationships with statutory authorities and with industry organisations and associations should also be described. It is recognised that Services may be subject to changes in structure from time to time. Major changes should be notified to trading partners so that the effects of re-structuring may be assessed.

3. Organisational components of *Veterinary Services* which have responsibility for key functional capabilities should be identified. These capabilities include epidemiological *surveillance*, *disease* control, import controls, animal disease reporting systems, animal identification systems, traceability systems, animal movement control systems, communication of epidemiological information, training, inspection and certification. Laboratory and field systems and their organisational relationships should be described.
4. To reinforce the reliability and credibility of their services, the *Veterinary Services* may have set up quality systems that correspond with their fields of activity and to the nature and scale of activities that they carry out. Evaluation of such systems should be as objective as possible.
5. The *Veterinary Authority* alone speaks for the country as far as official international dialogue is concerned. This is also particularly important to cases where zoning and compartmentalisation are being applied. The responsibilities of the *Veterinary Authority* should be made clear in the process of evaluation of *Veterinary Services*.
6. The *Veterinary Authority* is defined in the Glossary of the *Terrestrial Code*. As some countries have some relevant roles of the *Veterinary Authority* vested in autonomous sub-national (state/provincial, municipal) government bodies, there is an important need to assess the role and function of these Services. Details of their roles, relationship (legal and administrative) to each other and to the *Veterinary Authority* should be available for evaluation. Annual reports, review findings and access to other information pertinent to the animal health activities of such bodies should also be available.
7. Similarly, where the *Veterinary Authority* has arrangements with other providers of relevant services such as universities, laboratories, information services, etc., these arrangements should also be described. For the purposes of evaluation, it is appropriate to expect that the organisational and functional standards that apply to the *Veterinary Authority* should also apply to the service providers.

Article 3.2.4.

Evaluation criteria for quality systems

1. The *Veterinary Services* should demonstrate a commitment to the quality of the processes and outputs of their services. Where services or components of services are delivered under a formal quality systems programme which is based on OIE recommended standards or, especially in the case of laboratory components of *Veterinary Services* other internationally recognised quality standards, the *Veterinary Services* undergoing evaluation should make available evidence of accreditation, details of the documented quality processes and documented outcomes of all relevant audits undertaken.
2. Where the *Veterinary Services* undergoing evaluation make large use of formal quality systems in the delivery of their services, it is appropriate that greater emphasis be placed on the outcomes of evaluation of these quality systems than on the resource and infrastructural components of the services.

Article 3.2.5.

Evaluation criteria for human resources

1. The *Veterinary Services* should demonstrate that their human resource component includes an integral core of full-time civil service employees. This core should always include *veterinarians*. It should also include administrative officials and *veterinary para-professionals*. The human resources may also include part-time and private sector *veterinarians* and *veterinary para-professionals*. It is essential that all the

above categories of personnel be subject to legal disciplinary provisions. Data relating to the resource base of the *Veterinary Services* undergoing evaluation should be available.

2. In addition to raw quantitative data on this resource base, the functions of the various categories of personnel in the *Veterinary Services* should be described in detail. This is necessary for analysis and estimation of the appropriateness of the application of qualified skills to the tasks undertaken by the *Veterinary Services* and may be relevant, for example, to the roles of *veterinarians* and *veterinary para-professionals* in field services. In this case, the evaluation should provide assurances that *disease* monitoring is being conducted by a sufficient number of qualified, experienced field *veterinarians* who are directly involved in farm visits; there should not be an over-reliance on *veterinary para-professionals* for this task.
3. Analysis of these data can be used to estimate the potential of the *Veterinary Services* to have reliable knowledge of the state of animal health in the country and to support an optimal level of animal disease control programmes. A large population of private *veterinarians* would not provide the *Veterinary Services* with an effective epizootiological information base without legislative (e.g. compulsory reporting of *notifiable diseases*) and administrative (e.g. official animal health surveillance and reporting systems) mechanisms in place.
4. These data should be assessed in close conjunction with the other information described in this chapter. For example, a large field staff (*veterinarians* and *veterinary para-professionals*) need fixed, mobile and budgetary resources for animal health activities in the livestock farming territory of the country. If deficiencies are evident, there would be reason to challenge the validity of epizootiological information.

Article 3.2.6.

Evaluation criteria for material resources

1. Financial

Actual yearly budgetary information regarding the *Veterinary Services* should be available and should include the details set out in the model questionnaire outlined in Article 3.2.14. Information is required on conditions of service for veterinary staff (including salaries and incentives), and should provide a comparison with the private sector and perhaps with other professionals. Information should also be available on non-government sources of revenue available to *veterinarians* in their official responsibilities.

2. Administrative

a) Accommodation

The *Veterinary Services* should be accommodated in premises suitable for efficient performance of their functions. The component parts of the *Veterinary Services* should be located as closely as possible to each other at the central level, and in the regions where they are represented, in order to facilitate efficient internal communication and function.

b) Communications

The *Veterinary Services* should be able to demonstrate that they have reliable access to effective communications systems, especially for animal health surveillance and control programmes. Inadequate communications systems within the field services components of these programmes or between outlying offices and headquarters, or between the *Veterinary Services* and other relevant administrative and professional services, signify an inherent weakness in these programmes. Adequate communications systems between laboratories and between field and laboratory components of the *Veterinary Services* should also be demonstrated.

Examples of types of communications which should be routinely available on an adequate country-wide basis are national postal, freight and telephone networks. Rapid courier services, facsimile and electronic data interchange systems (e.g. e-mail and Internet services) are examples

of useful communication services which, if available, can supplement or replace the others. A means for rapid international communication should be available to the *Veterinary Authority*, to permit reporting of changes in national disease status consistent with OIE recommendations and to allow bilateral contact on urgent matters with counterpart *Veterinary Authorities* in trading-partner countries.

c) Transport systems

The availability of sufficient reliable transport facilities is essential for the performance of many functions of *Veterinary Services*. This applies particularly to the field services components of animal health activities (e.g. emergency response visits). Otherwise, the *Veterinary Services* cannot assure counterpart services in other countries that they are in control of the animal health situation within the country.

Appropriate means of transport are also vital for the satisfactory receipt of samples to be tested at veterinary laboratories, for inspection of imports and exports, and for the performance of *animals* and animal product inspection in outlying production or processing establishments.

3. Technical

Details available on laboratories should include resources data, programmes under way as well as those recently completed and review reports on the role or functions of the laboratory. Information as described in the model questionnaire should be used in the evaluation of laboratory services.

a) Cold chain for laboratory samples and veterinary medicines

Adequate refrigeration and freezing systems should be available and should be used throughout the country to provide suitable low temperature protection for laboratory samples in transit or awaiting analysis, as well as veterinary medical products (e.g. vaccines) when these are required for use in animal disease control programmes. If these assurances cannot be given, it may be valid to discount many types of test results, as well as the effectiveness of certain disease control programmes and the export inspection system in the country undergoing evaluation.

b) Diagnostic laboratories

Analysis of the laboratory service component of *Veterinary Services*, which would include official governmental laboratories and other laboratories accredited by the *Veterinary Services* for specified purposes, is an essential element of the evaluation process. The quality of the veterinary diagnostic laboratories of a country underpins the whole control and certification processes of the zoonitary/sanitary status of exported *animals* and animal products, and therefore these laboratories should be subject to rigid quality assurance procedures and should use international quality assurance programmes (wherever available) for standardising test methodologies and testing proficiency. An example is the use of International Standard Sera for standardising reagents.

This emphasis is valid whether one relates it to the actual testing performed on individual export consignments or to the more broad and ongoing testing regimes which are used to determine the animal health and veterinary public health profiles of the country and to support its disease control programmes. For the purposes of evaluation, veterinary diagnostic laboratories include those which are concerned with either animal health or veterinary public health activities. The *Veterinary Services* should approve and designate these laboratories for such purposes and have them audited regularly.

c) Research

The scope of animal disease and veterinary public health problems in the country concerned, the stages reached in the controls which address those problems and their relative importance can be measured to some degree by analysis of information on government priorities and programmes for research in animal health. This information should be accessible for evaluation purposes.

Article 3.2.7.

Legislation and functional capabilities

1. Animal health, animal welfare and veterinary public health

The *Veterinary Authority* should be able to demonstrate that it has the capacity, supported by appropriate legislation, to exercise control over all animal health matters. These controls should include, where appropriate, compulsory notification of prescribed animal diseases, inspection, movement controls through systems which provide adequate traceability, registration of facilities, quarantine of infected premises/areas, testing, treatment, destruction of infected *animals* or contaminated materials, controls over the use of veterinary medicines, etc. The scope of the legislative controls should include domestic *animals* and their reproductive material, animal products, *wildlife* as it relates to the transmission of *diseases* to humans and domestic *animals*, and other products subject to veterinary inspection. Arrangements should exist for co-operation with the *Veterinary Authorities* of the neighbouring countries for the control of animal *diseases* in border areas and for establishing linkages to recognise and regulate transboundary activities. Within the structure of *Veterinary Services*, there should be appropriately qualified personnel whose responsibilities include *animal welfare*. Information on the veterinary public health legislation covering the production of products of animal origin for national consumption may be also considered in the evaluation.

2. Export/import inspection

The *Veterinary Authority* should have appropriate legislation and adequate capabilities to prescribe the methods for control and to exercise systematic control over the import and export processes of *animals* and animal products in so far as this control relates to sanitary and zoosanitary matters. The evaluation should also involve the consideration of administrative instructions to ensure the enforcement of *importing country* requirements during the pre-export period.

In the context of production for export of foodstuffs of animal origin, the *Veterinary Authority* should demonstrate that comprehensive legislative provisions are available for the oversight by the relevant authorities of the hygienic process and to support official inspection systems of these *commodities* which function to standards consistent with or equivalent to relevant Codex Alimentarius and OIE standards.

Control systems should be in place which permit the exporting *Veterinary Authority* to approve export premises. The *Veterinary Services* should also be able to conduct testing and treatment as well as to exercise controls over the movement, handling and storage of exports and to make inspections at any stage of the export process. The product scope of this export legislation should include, *inter alia*, *animals* and animal products (including animal semen, ova and embryos), and animal feedstuffs.

The *Veterinary Authority* should be able to demonstrate that they have adequate capabilities and legislative support for zoosanitary control of imports and transit of *animals*, animal products and other materials which may introduce animal *diseases*. This could be necessary to support claims by the *Veterinary Services* that the animal health status of the country is suitably stable, and that cross-contamination of exports from imports of unknown or less favourable zoosanitary status is unlikely. The same considerations should apply in respect of veterinary control of public health. The *Veterinary Services* should be able to demonstrate that there is no conflict of interest when certifying veterinarians are performing official duties.

Legislation should also provide the right to deny and/or withdraw official certification. Penalty provisions applying to malpractice on the part of certifying officials should be included.

The *Veterinary Services* should demonstrate that they are capable of providing accurate and valid certification for exports of *animals* and animal products, based on Chapters 5.1. and 5.2. of the *Terrestrial Code*. They should have appropriately organised procedures which ensure that sanitary/animal health certificates are issued by efficient and secure methods. The documentation control system should be able to correlate reliably the certification details with the relevant export consignments and with any inspections to which the consignments were subjected.

Security in the export certification process, including electronic documentation transfer, is important. A system of independent compliance review is desirable, to safeguard against fraud in certification by officials and by private individuals or corporations. The certifying veterinarian should have no conflict of interest in the commercial aspects of the *animals* or animal product being certified and be independent from the commercial parties.

Article 3.2.8.

Animal health controls

1. Animal health status

An updated assessment of the present animal disease status of a country is an important and necessary procedure. For this undertaking, studies of the OIE publications such as *World Animal Health*, the *Bulletin* and *Disease Information* should be fundamental reference points. The evaluation should consider the recent history of the compliance of the country with its obligations regarding international notification of animal *diseases*. In the case of an OIE Member, failure to provide the necessary animal health reports consistent with OIE requirements will detract from the overall outcome of the evaluation of the country.

An *exporting country* should be able to provide further, detailed elaboration of any elements of its animal disease status as reported to the OIE. This additional information will have particular importance in the case of animal *diseases* which are foreign to or strictly controlled in the *importing country* or region. The ability of the *Veterinary Services* to substantiate elements of their animal disease status reports with surveillance data, results of monitoring programmes and details of disease history is highly relevant to the evaluation. In the case of evaluation of the *Veterinary Services* of an *exporting country* for *international trade* purposes, an *importing country* should be able to demonstrate the reasonableness of its request and expectations in this process.

2. Animal health control

Details of current animal disease control programmes should be considered in the evaluation. These programmes would include epidemiological surveillance, official government-administered or officially-endorsed, industry-administered control or eradication programmes for specific *diseases* or *disease* complexes, and animal disease emergency preparedness. Details should include enabling legislation, programme plans for epidemiological surveillance and animal disease emergency responses, quarantine arrangements for infected and exposed animals or *herds*, compensation provisions for animal owners affected by disease control measures, training programmes, physical and other barriers between the free country or zone and those infected, incidence and prevalence data, resource commitments, interim results and programme review reports.

3. National animal disease reporting systems

The presence of a functional animal disease reporting system which covers all agricultural regions of the country and all veterinary administrative control areas should be demonstrated.

An acceptable variation would be the application of this principle to specific zones of the country. In this case also, the animal disease reporting system should cover each of these zones. Other factors should come to bear on this situation, e.g. the ability to satisfy trading partners that sound animal health controls exist to prevent the introduction of *disease* or export products from regions of lesser veterinary control.

Article 3.2.9.

Veterinary public health controls

1. Food hygiene

The *Veterinary Authority* should be able to demonstrate effective responsibility for the veterinary public health programmes relating to the production and processing of animal products. If the *Veterinary Authority* does not exercise responsibility over these programmes, the evaluation should include a comprehensive review of the role and relationship of the organisations (national, state/provincial, and municipal) which are involved. In such a case, the evaluation should consider whether the *Veterinary Authority* can provide guarantees of responsibility for an effective control of the sanitary status of animal products throughout the *slaughter*, processing, transport and storage periods.

2. Zoonoses

Within the structure of *Veterinary Services*, there should be appropriately qualified personnel whose responsibilities include the monitoring and control of zoonotic diseases and, where appropriate, liaison with medical authorities.

3. Chemical residue testing programmes

Adequacy of controls over chemical residues in exported *animals*, animal products and feedstuffs should be demonstrated. Statistically-based *surveillance* and monitoring programmes for environmental and other chemical contaminants in *animals*, in animal-derived foodstuffs and in animal feedstuffs should be favourably noted. These programmes should be coordinated nationwide. Correlated results should be freely available on request to existing and prospective trading partner countries. Analytical methods and result reporting should be consistent with internationally recognised standards. If official responsibility for these programmes does not rest with the *Veterinary Services*, there should be appropriate provision to ensure that the results of such programmes are made available to the *Veterinary Services* for assessment. This process should be consistent with the standards set by the Codex Alimentarius Commission or with alternative requirements set by the *importing country* where the latter are scientifically justified.

4. Veterinary medicines

It should be acknowledged that primary control over veterinary medicinal products may not rest with the *Veterinary Authority* in some countries, owing to differences between governments in the division of legislative responsibilities. However, for the purpose of evaluation, the *Veterinary Authority* should be able to demonstrate the existence of effective controls (including nationwide consistency of application) over the manufacture, importation, export, registration, supply, sale and use of veterinary medicines, biologicals and diagnostic reagents, whatever their origin. The control of veterinary medicines has direct relevance to the areas of animal health and public health.

In the animal health sphere, this has particular application to biological products. Inadequate controls on the registration and use of biological products leave the *Veterinary Services* open to challenge over the quality of animal disease control programmes and over safeguards against *animal disease* introduction in imported veterinary biological products.

It is valid, for evaluation purposes, to seek assurances of effective government controls over veterinary medicines in so far as these relate to the public health risks associated with residues of these chemicals in *animals* and animal-derived foodstuffs. This process should be consistent with the standards set by the Codex Alimentarius Commission or with alternative requirements set by the *importing country* where the latter are scientifically justified.

5. Integration between animal health controls and veterinary public health

The existence of any organised programme which incorporates a structured system of information feedback from inspection in establishments producing products of animal origin, in particular *meat* or dairy products, and applies this in animal health control should be favourably noted. Such programmes should be integrated within a national disease surveillance scheme.

Veterinary Services which direct a significant element of their animal health programmes specifically towards minimising microbial and chemical contamination of animal-derived products in the human food chain should receive favourable recognition in the evaluation. There should be evident linkage between these programmes and the official control of veterinary medicines and relevant agricultural chemicals.

Article 3.2.10.

Performance assessment and audit programmes

1. Strategic plans

The objectives and priorities of the *Veterinary Services* can be well evaluated if there is a published official strategic plan which is regularly updated. Understanding of functional activities is enhanced if an operational plan is maintained within the context of the strategic plan. The strategic and operational plans, if these exist, should be included in the evaluation.

Veterinary Services which use strategic and operational plans may be better able to demonstrate effective management than countries without such plans.

2. Performance assessment

If a strategic plan is used, it is desirable to have a process which allows the organisation to assess its own performance against its objectives. Performance indicators and the outcomes of any review to measure achievements against pre-determined performance indicators should be available for evaluation. The results should be considered in the evaluation process.

3. Compliance

Matters which can compromise compliance and adversely affect a favourable evaluation include instances of inaccurate or misleading official certification, evidence of fraud, corruption, or interference by higher political levels in international veterinary certification, and lack of resources and poor infrastructure.

It is desirable that the *Veterinary Services* contain (or have a formal linkage with) an independent internal unit/section/commission the function of which is to critically scrutinise their operations. The aim of this unit should be to ensure consistent and high integrity in the work of the individual officials in the *Veterinary Services* and of the corporate body itself. The existence of such a body can be important to the establishment of international confidence in the *Veterinary Services*.

An important feature when demonstrating the integrity of the *Veterinary Services* is their ability to take corrective action when miscertification, fraud or corruption has occurred.

A supplementary or an alternative process for setting performance standards and application of monitoring and audit is the implementation of formal quality systems to some or all activities for which the *Veterinary Services* are responsible. Formal accreditation to international quality system standards should be utilised if recognition in the evaluation process is to be sought.

4. Veterinary Services administration

a) Annual reports

Official government annual reports should be published, which provide information on the organisation and structure, budget, activities and contemporary performance of the *Veterinary Services*. Current and retrospective copies of such reports should be available to counterpart Services in other countries, especially trade partners.

b) Reports of government review bodies

The reports of any periodic or ad hoc government reviews of *Veterinary Services* or of particular functions or roles of the *Veterinary Services* should be considered in the evaluation process. Details of action taken as a consequence of the review should also be accessible.

- c) Reports of special committees of enquiry or independent review bodies

Recent reports on the *Veterinary Services* or elements of their role or function, and details of any subsequent implementation of recommendations contained in these reports should be available. The *Veterinary Services* concerned should recognise that the provision of such information need not be detrimental to the evaluation outcome; in fact, it may demonstrate evidence of an effective audit and response programme. The supplying of such information can reinforce a commitment to transparency.

- d) In-service training and development programme for staff

In order to maintain a progressive approach to meeting the needs and challenges of the changing domestic and international role of *Veterinary Services*, the national administration should have in place an organised programme which provides appropriate training across a range of subjects for relevant staff. This programme should include participation in scientific meetings of animal health organisations. Such a programme should be used in assessing the effectiveness of the Services.

- e) Publications

Veterinary Services can augment their reputation by demonstrating that their staff publish scientific articles in refereed veterinary journals or other publications.

- f) Formal linkages with sources of independent scientific expertise

Details of formal consultation or advisory mechanisms in place and operating between the *Veterinary Services* and local and international universities, scientific institutions or recognised veterinary organisations should be taken into consideration. These could serve to enhance the international recognition of the *Veterinary Services*.

- g) Trade performance history

In the evaluation of the *Veterinary Services* of a country, it is pertinent to examine the recent history of their performance and integrity in trade dealings with other countries. Sources of such historical data may include Customs Services.

Article 3.2.11.

Participation in OIE activities

Questions on a country's adherence to its obligations as a member of the OIE are relevant to an evaluation of the *Veterinary Services* of the country. Self-acknowledged inability or repeated failure of a Member to fulfil reporting obligations to the OIE will detract from the overall outcome of the evaluation. Such countries, as well as non-member countries, will need to provide extensive information regarding their *Veterinary Services* and sanitary/zoosanitary status for evaluation purposes.

Article 3.2.12.

Evaluation of veterinary statutory body

1. Scope

In the evaluation of the *veterinary statutory body*, the following items may be considered, depending on the purpose of the evaluation:

- a) objectives and functions;
- b) legislative basis, autonomy and functional capacity;
- c) the composition and representation of the body's membership;

- d) accountability and transparency of decision-making;
- e) sources and management of funding;
- f) administration of training programmes and continuing professional development for *veterinarians* and *veterinary para-professionals*.

2. Evaluation of objectives and functions

The *veterinary statutory body* should define its policy and objectives, including detailed descriptions of its powers and functions such as:

- a) to regulate *veterinarians* and *veterinary para-professionals* through licensing and/or registration of such persons;
- b) to determine the minimum standards of education (initial and continuing) required for degrees, diplomas and certificates entitling the holders thereof to be registered as *veterinarians* and *veterinary para-professionals*;
- c) to determine the standards of professional conduct of *veterinarians* and *veterinary para-professionals* and to ensure these standards are met.

3. Evaluation of legislative basis, autonomy and functional capacity

The *veterinary statutory body* should be able to demonstrate that it has the capacity, supported by appropriate legislation, to exercise and enforce control over all *veterinarians* and *veterinary para-professionals*. These controls should include, where appropriate, compulsory licensing and registration, minimum standards of education (initial and continuing) for the recognition of degrees, diplomas and certificates, setting standards of professional conduct and exercising control and the application of disciplinary procedures.

The *veterinary statutory body* should be able to demonstrate autonomy from undue political and commercial interests.

Where applicable, regional agreements for the recognition of degrees, diplomas and certificates for *veterinarians* and *veterinary para-professionals* should be demonstrated.

4. Evaluation of membership representation

Detailed descriptions should be available in respect of the membership of the *veterinary statutory body* and the method and duration of appointment of members. Such information includes:

- a) *veterinarians* designated by the *Veterinary Authority*, such as the Chief Veterinary Officer;
- b) *veterinarians* elected by members registered by the *veterinary statutory body*;
- c) *veterinarians* designated or nominated by the veterinary association(s);
- d) representative(s) of veterinary para-professions;
- e) representative(s) of veterinary academia;
- f) representative(s) of other stakeholders from the private sector;
- g) election procedures and duration of appointment;
- h) qualification requirements for members.

5. Evaluation of accountability and transparency of decision-making

Detailed information should be available on disciplinary procedures regarding the conducting of enquiries into professional misconduct, transparency of decision-making, publication of findings, sentences and mechanisms for appeal.

Additional information regarding the publication at regular intervals of activity reports, lists of registered or licensed persons including deletions and additions should also be taken into consideration.

6. Evaluation of financial sources and financial management

Information regarding income and expenditure, including fee structure(s) for the licensing/registration of persons should be available.

7. Evaluation of training programmes and programmes for continuing professional development, for veterinarians and veterinary para-professionals

Descriptive summary of continuing professional development, training and education programmes should be provided, including descriptions of content, duration and participants; documented details of quality manuals and standards relating to Good Veterinary Practice should be provided.

Article 3.2.13.

1. The *Veterinary Services* of a country may undertake self-evaluation against the above criteria for such purposes as national interest, improvement of internal efficiency or export trade facilitation. The way in which the results of self-evaluation are used or distributed is a matter for the country concerned.
2. A prospective *importing country* may undertake an evaluation of the *Veterinary Services* of an *exporting country* as part of a *risk analysis* process, which is necessary to determine the sanitary or zoonosanitary measures which the country will use to protect human or animal life or health from *disease* or pest threats posed by imports. Periodic evaluation reviews are also valid following the commencement of trade.
3. In the case of evaluation for the purposes of *international trade*, the authorities of an *importing country* should use the principles elaborated above as the basis for the evaluation and should attempt to acquire information according to the model questionnaire outlined in Article 3.2.14. The *Veterinary Services* of the *importing country* are responsible for the analysis of details and for determining the outcome of the evaluation after taking into account all the relevant information. The relative ranking of importance ascribed, in the evaluation, to the criteria described in this chapter will necessarily vary according to case-by-case circumstances. This ranking should be established in an objective and justifiable way. Analysis of the information obtained in the course of an evaluation study should be performed in as objective a manner as possible. The validity of the information should be established and reasonableness should be employed in its application. The assessing country should be willing to defend any position taken on the basis of this type of information, if challenged by the other party.

Article 3.2.14.

This article outlines appropriate information requirements for the self-evaluation or evaluation of the *Veterinary Services* of a country.

1. Organisation and structure of Veterinary Services

a) National Veterinary Authority

Organisational chart including numbers, positions and numbers of vacancies.

b) Sub-national components of the Veterinary Authority

Organisational charts including numbers, positions and number of vacancies.

c) Other providers of veterinary services

Description of any linkage with other providers of veterinary services.

2. National information on human resources

a) Veterinarians

- i) Total numbers of *veterinarians* registered/licensed by the *Veterinary statutory body* of the country.

- ii) Numbers of:
- full time government *veterinarians*: national and sub-national;
 - part time government *veterinarians*: national and sub-national;
 - private *veterinarians* authorised by the *Veterinary Services* to perform official veterinary functions [*Describe accreditation standards, responsibilities and/or limitations applying to these private veterinarians.*];
 - other *veterinarians*.
- iii) Animal health:
- Numbers associated with farm livestock sector on a majority time basis in a veterinary capacity, by geographical area [*Show categories and numbers to differentiate staff involved in field service, laboratory, administration, import/export and other functions, as applicable.*]:
- full time government *veterinarians*: national and sub-national;
 - part time government *veterinarians*: national and sub-national;
 - other *veterinarians*.
- iv) Veterinary public health:
- Numbers employed in food inspection on a majority time basis, by commodity [*Show categories and numbers to differentiate staff involved in inspection, laboratory and other functions, as applicable.*]:
- full time government *veterinarians*: national and sub-national;
 - part time government *veterinarians*: national and sub-national;
 - other *veterinarians*.
- v) Numbers of veterinarians relative to certain national indices:
- per total human population;
 - per farm livestock population, by geographical area;
 - per livestock farming unit, by geographical area.
- vi) Veterinary education:
- number of veterinary schools;
 - length of veterinary course (years);
 - curriculum addressing the minimum competencies of day 1 veterinary graduates to assure the delivery of quality veterinary services, as described in the relevant chapter(s) of the *Terrestrial Code*;
 - international recognition of veterinary degree.
- vii) Veterinary professional associations.
- b) Graduate personnel (non-veterinary)
- Details to be provided by category (including biologists, biometricians, economists, engineers, lawyers, other science graduates and others) on numbers within the *Veterinary Authority* and available to the *Veterinary Authority*.
- c) Veterinary para-professionals employed by the Veterinary Services
- i) Animal health:
- Categories and numbers involved with farm livestock on a majority time basis:
 - by geographical area;

- proportional to numbers of field Veterinary Officers in the *Veterinary Services*, by geographical area.
 - Education/training details.
 - ii) Veterinary public health:
 - Categories and numbers involved in food inspection on a majority time basis:
 - *meat* inspection: export *meat* establishments with an export function and domestic *meat* establishments (no export function);
 - dairy inspection;
 - other foods.
 - Numbers in import/export inspection.
 - Education/training details.
 - d) Support personnel
Numbers directly available to *Veterinary Services* per sector (administration, communication, transport).
 - e) Descriptive summary of the functions of the various categories of staff mentioned above
 - f) Veterinary, *veterinary para-professionals*, livestock owner, farmer and other relevant associations
 - g) Additional information and/or comments.
3. Financial management information
- a) Total budgetary allocations to the *Veterinary Authority* for the current and past two fiscal years:
 - i) for the national *Veterinary Authority*;
 - ii) for each of any sub-national components of the *Veterinary Authority*;
 - iii) for other relevant government-funded institutions.
 - b) Sources of the budgetary allocations and amount:
 - i) government budget;
 - ii) sub-national authorities;
 - iii) taxes and fines;
 - iv) grants;
 - v) private services.
 - c) Proportional allocations of the amounts in a) above for operational activities and for the programme components of *Veterinary Services*.
 - d) Total allocation proportionate of national public sector budget. [*This data may be necessary for comparative assessment with other countries which should take into account the contexts of the importance of the livestock sector to the national economy and of the animal health status of the country.*]
 - e) Actual and proportional contribution of animal production to gross domestic product.
4. Administration details
- a) Accommodation
Summary of the numbers and distribution of official administrative centres of the *Veterinary Services* (national and sub-national) in the country.
 - b) Communications
Summary of the forms of communication systems available to the *Veterinary Services* on a nation-wide and local area bases.

- c) Transport
- i) Itemised numbers of types of functional transport available on a full-time basis for the *Veterinary Services*. In addition provide details of transport means available part-time.
 - ii) Details of annual funds available for maintenance and replacement of motor vehicles.
5. Laboratory services
- a) Diagnostic laboratories (laboratories engaged primarily in diagnosis)
 - i) Descriptive summary of the organisational structure and role of the government veterinary laboratory service in particular its relevance to the field *Veterinary Services*.
 - ii) Numbers of veterinary diagnostic laboratories operating in the country:
 - government operated laboratories;
 - private laboratories accredited by government for the purposes of supporting official or officially-endorsed animal health control or public health testing and monitoring programmes and import/export testing.
 - iii) Descriptive summary of accreditation procedures and standards for private *laboratories*.
 - iv) Human and financial resources allocated to the government veterinary *laboratories*, including staff numbers, graduate and post-graduate qualifications and opportunities for further training.
 - v) List of diagnostic methodologies available against major *diseases* of farm livestock (including *poultry*).
 - vi) Details of collaboration with external *laboratories* including international reference laboratories and details on numbers of samples submitted.
 - vii) Details of quality control and assessment (or validation) programmes operating within the veterinary laboratory service.
 - viii) Recent published reports of the official veterinary laboratory service which should include details of specimens received and foreign animal disease investigations made.
 - ix) Details of procedures for storage and retrieval of information on specimen submission and results.
 - x) Reports of independent reviews of the laboratory service conducted by government or private organisations (if available).
 - xi) Strategic and operational plans for the official veterinary laboratory service (if available).
 - b) Research laboratories (laboratories engaged primarily in research)
 - i) Numbers of veterinary research *laboratories* operating in the country:
 - government operated *laboratories*;
 - private *laboratories* involved in full time research directly related to animal health and veterinary public health matters involving production animal species.
 - ii) Summary of human and financial resources allocated by government to veterinary research.
 - iii) Published programmes of future government sponsored veterinary research.
 - iv) Annual reports of the government research *laboratories*.
6. Veterinary legislation, regulations and functional capabilities
- a) Animal health and veterinary public health
 - i) Assessment of the adequacy and implementation of relevant legislation (national or sub-national) concerning the following:
 - animal and veterinary public health controls at national frontiers;

- control of endemic animal diseases, including *zoonoses*;
 - emergency powers for control of exotic disease outbreaks, including *zoonoses*;
 - inspection and registration of facilities;
 - animal feeding;
 - veterinary public health controls of the production, processing, storage and marketing of *meat* for domestic consumption;
 - veterinary public health controls of the production, processing, storage and marketing of fish, dairy products and other foods of animal origin for domestic consumption;
 - registration and use of veterinary pharmaceutical products including vaccines;
 - *animal welfare*.
- ii) Assessment of ability of *Veterinary Services* to enforce legislation.
- b) Export/import inspection
- i) Assessment of the adequacy and implementation of relevant national legislation concerning:
- veterinary public health controls of the production, processing, storage and transportation of *meat* for export;
 - veterinary public health controls of production, processing, storage and marketing of fish, dairy products and other foods of animal origin for export;
 - animal health and veterinary public health controls of the export and import of *animals*, animal genetic material, animal products, animal feedstuffs and other products subject to veterinary inspection;
 - animal health controls of the importation, use and bio-containment of organisms which are aetiological agents of animal diseases, and of pathological material;
 - animal health controls of importation of veterinary biological products including vaccines;
 - administrative powers available to *Veterinary Services* for inspection and registration of facilities for veterinary control purposes (if not included under other legislation mentioned above);
 - documentation and compliance.
- ii) Assessment of ability of *Veterinary Services* to enforce legislation.
7. Animal health and veterinary public health controls
- a) Animal health
- i) Description of and sample reference data from any national animal disease reporting system controlled and operated or coordinated by the *Veterinary Services*.
- ii) Description of and sample reference data from other national animal disease reporting systems controlled and operated by other organisations which make data and results available to *Veterinary Services*.
- iii) Description and relevant data of current official control programmes including:
- epidemiological surveillance or monitoring programmes;
 - officially approved industry administered control or eradication programmes for specific *diseases*.
- iv) Description and relevant details of animal disease emergency preparedness and response plans.

- v) Recent history of animal disease status:
- animal *diseases* eradicated nationally or from defined sub-national zones in the last ten years;
 - animal *diseases* of which the prevalence has been controlled to a low level in the last ten years;
 - animal *diseases* introduced to the country or to previously free sub national regions in the last ten years;
 - *emerging diseases* in the last ten years;
 - animal *diseases* of which the prevalence has increased in the last ten years.
- b) Veterinary public health
- i) Food hygiene
- Annual national *slaughter* statistics for the past three years according to official data by species of *animals* (bovine, ovine, porcine, caprine, *poultry*, farmed game, wild game, equine, other).
 - Estimate of total annual slaughterings which occur but are not recorded under official statistics.
 - Proportion of total national *slaughter* which occurs in registered export establishments, by category of *animal*.
 - Proportion of total national *slaughter* which occurs under veterinary control, by category of *animal*.
 - Numbers of commercial *fresh meat* establishments in the country which are registered for export by the *Veterinary Authority*:
 - *slaughterhouses* (indicate species of *animals*);
 - cutting/packing plants (indicate *meat* type);
 - *meat* processing establishments (indicate *meat* type);
 - cold stores.
 - Numbers of commercial *fresh meat* establishments in the country approved by other *importing countries* which operate international assessment inspection programmes associated with approval procedures.
 - Numbers of commercial *fresh meat* establishments under direct public health control of the *Veterinary Services* (including details of category and numbers of inspection staff associated with these premises).
 - Description of the veterinary public health programme related to production and processing of animal products for human consumption (including *fresh meat*, *poultry meat*, *meat products*, game *meat*, dairy products, fish, fishery products, molluscs and crustaceans and other foods of animal origin) especially including details applying to exports of these *commodities*.
 - Descriptive summary of the roles and relationships of other official organisations in public health programmes for the products listed above if the *Veterinary Authority* does not have responsibility for those programmes which apply to national production destined to domestic consumption and/or exports of the *commodities* concerned.
- ii) Zoonoses
- Descriptive summary of the numbers and functions of staff of the *Veterinary Authority* involved primarily with monitoring and control of zoonotic diseases.

- Descriptive summary of the role and relationships of other official organisations involved in monitoring and control of *zoonoses* to be provided if the *Veterinary Authority* does not have these responsibilities.
 - iii) Chemical residue testing programmes
 - Descriptive summary of national surveillance and monitoring programmes for environmental and chemical residues and contaminants applied to animal-derived foodstuffs, *animals* and animal feedstuffs.
 - Role and function in these programmes of the *Veterinary Authority* and other *Veterinary Services* to be described in summary form.
 - Descriptive summary of the analytical methodologies used and their consistency with internationally recognised standards.
 - iv) Veterinary medicines
 - Descriptive summary of the administrative and technical controls involving registration, supply and use of veterinary pharmaceutical products especially including biological products. This summary should include a focus on veterinary public health considerations relating to the use of these products in food-producing *animals*.
 - Role and function in these programmes of the *Veterinary Authority* and other *Veterinary Services* to be described in summary form.
8. Quality systems
- a) Accreditation

Details and evidence of any current, formal accreditation by external agencies of the *Veterinary Services* of any components thereof.
 - b) Quality manuals

Documented details of the quality manuals and standards which describe the accredited quality systems of the *Veterinary Services*.
 - c) Audit

Details of independent (and internal) audit reports which have been undertaken of the *Veterinary Services* of components thereof.
9. Performance assessment and audit programmes
- a) Strategic plans and review
 - i) Descriptive summary and copies of strategic and operational plans of the *Veterinary Services* organisation.
 - ii) Descriptive summary of corporate performance assessment programmes which relate to the strategic and operational plans - copies of recent review reports.
 - b) Compliance

Descriptive summary of any compliance unit which monitors the work of the *Veterinary Services* (or elements thereof).
 - c) Annual reports of the Veterinary Authority

Copies of official annual reports of the national (sub-national) *Veterinary Authority*.
 - d) Other reports
 - i) Copies of reports of official reviews into the function or role of the *Veterinary Services* which have been conducted within the past three years.
 - ii) Descriptive summary (and copy of reports if available) of subsequent action taken on recommendations made in these reviews.

- e) Training
 - i) Descriptive summary of in-service and development programmes provided by the *Veterinary Services* (or their parent Ministries) for relevant staff.
 - ii) Summary descriptions of training courses and duration.
 - iii) Details of staff numbers (and their function) who participated in these training courses in the last three years.
 - f) Publications

Bibliographical list of scientific publications by staff members of *Veterinary Services* in the past three years.
 - g) Sources of independent scientific expertise

List of local and international universities, scientific institutions and recognised veterinary organisations with which the *Veterinary Services* have consultation or advisory mechanisms in place.
10. Membership of the OIE
State if country is a member of the OIE and period of membership.
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CHAPTER 3.3.

COMMUNICATION

Article 3.3.1.

General considerations

In general communication entails the exchange of information between various individual, institutional and public groups for purposes of informing, guiding and motivating action. The application of the science and technique of communication involves modulating messages according to situations, objectives and target audiences.

The recognition of communication as a discipline of the *Veterinary Services* and its incorporation within it is critical for their operations. The integration of veterinary and communication expertises is essential for effective communication.

Communication should be an integral part of all the activities of the *Veterinary Services* including animal health (*surveillance*, early detection and rapid response, prevention and control), *animal welfare* and veterinary public health (food safety, *zoonoses*) and veterinary medicine.

Objectives of this chapter on communication for the *Veterinary Services* are to provide guidance for the development of a communication system, strategic and operational communication plans and elements to assess their quality.

Article 3.3.2.

Principles of communication

1. *Veterinary Services* should have the authority and capability to communicate on matters within their mandate.
2. Veterinary and communication expertises should be combined.
3. Communication should be targeted and follow the fundamental criteria of transparency, consistency, timeliness, balance, accuracy, honesty and empathy and respect the fundamental principles of quality of *Veterinary Services* (Article 3.1.2.).
4. Communication should be a continuous process.
5. *Veterinary Services* should be responsible for planning, implementing, monitoring, evaluating and revising their strategic and operational communication plans.

Article 3.3.3.

Definitions

Communication: means the discipline of informing, guiding and motivating individual, institutional and public groups, ideally on the basis of interactive exchanges, about any issue under the competence of the *Veterinary Services*.

Crisis: means a situation of great threat, difficulty or uncertainty when issues under the competence of the *Veterinary Services* require immediate action.

Crisis communication: means the process of communicating information of potentially incomplete nature within time constraints in the event of a crisis.

Outbreak communication: means the process of communicating in the event of an *outbreak*. Outbreak communication includes notification.

Article 3.3.4.

Communication system

In addition to the Principles for Communication the following elements should be used in conjunction with Chapter 3.1., when planning, implementing and assessing a communication system:

1. Organisational chart indicating a direct link between the communication personnel and the Veterinary Authority, through the chain of command (e.g. dedicated communication unit, communication officer)
2. Human resources
 - a) Identified and accessible official communication focal point
 - b) Job descriptions of communication personnel identifying roles and responsibilities
 - c) Sufficient number of qualified personnel with knowledge, skills, attitude and abilities relevant to communication
 - d) Continuous training and education on communication provided to communication personnel.
3. Financial and physical resources
 - a) Clearly identified budget for communication that provides adequate funding
 - b) Provision and/or access to appropriate material resources in order to carry out roles and responsibilities: suitable premise/accommodation that is adequately equipped with sufficient office and technical equipment, including information technology and access to the Internet.
4. Management of the communication system
 - a) Roles and responsibilities of the communication personnel
 - i) Report to the *Veterinary Authority*
 - ii) Engage in decision-making process
 - iii) Be responsible for the planning, implementation and evaluation of the strategic and operational plans for communication and relevant standard operating procedures
 - iv) Function as contact point on communication issues for the *Veterinary Services*
 - v) Provide guidance and expertise on communication issues to the *Veterinary Services*
 - vi) Provide and coordinate continuous education on communication for the *Veterinary Services*.
 - b) Strategic plan for communication

A well-designed strategic plan for communication should support the *Veterinary Services* strategic plan and have management support and commitment. The strategic plan for communication should address all high level organization-wide communication objectives. The plan should be a long-term plan.

A strategic plan for communication should be monitored, periodically reviewed and should identify measurable performance objectives and techniques to assess.

The strategic plan for communication should consider the different types of communication: routine communication, risk communication, outbreak communication and crisis communication, to allow individuals, affected and/or interested parties, an entire community or the general public to make best possible decisions and be informed of and/or accept policy decisions and their rationale.

The key outcomes in effectively implementing a strategic plan for communication are increased knowledge and awareness of issues by the public and stakeholders, higher understanding of the role of the *Veterinary Services*, higher visibility of and improved trust and credibility in the *Veterinary Services*. These will enhance understanding and/or acceptance of policy decisions and subsequent change of perception, attitude and/or behaviour.

c) Operational plans for communication

Operational plans for communication should be based on the assessment of specific issues and should identify specific objectives and target audiences such as staff, partners, stakeholders, media and the general public.

Each operational plan for communication should consist of a well-planned series of activities using different techniques, tools, messages and channels to achieve intended objectives and utilizing available resources within a specific timeframe.
